FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

Table of Contents

CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.

1.2 PACKAGE CHECKLIST

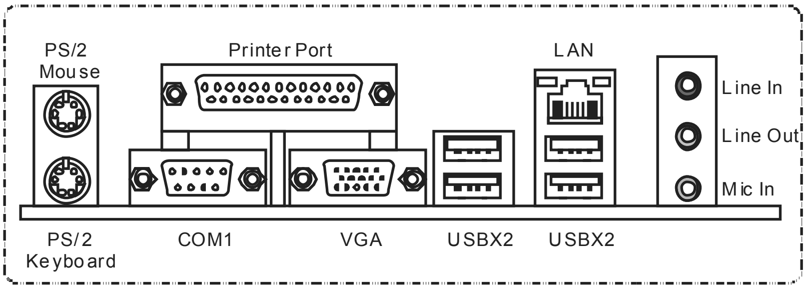
- FDD Cable X 1
- HDD Cable X 1
- User's Manual X 1
- Fully Setup Driver CD X 1
- Rear I/O Panel for ATX Case X 1
- Serial ATA Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)
- S/PDIF Cable X 1 (optional)
- Serial ATA Power Switch Cable X 1 (optional)

1.3 MOTHERBOARD FEATURES

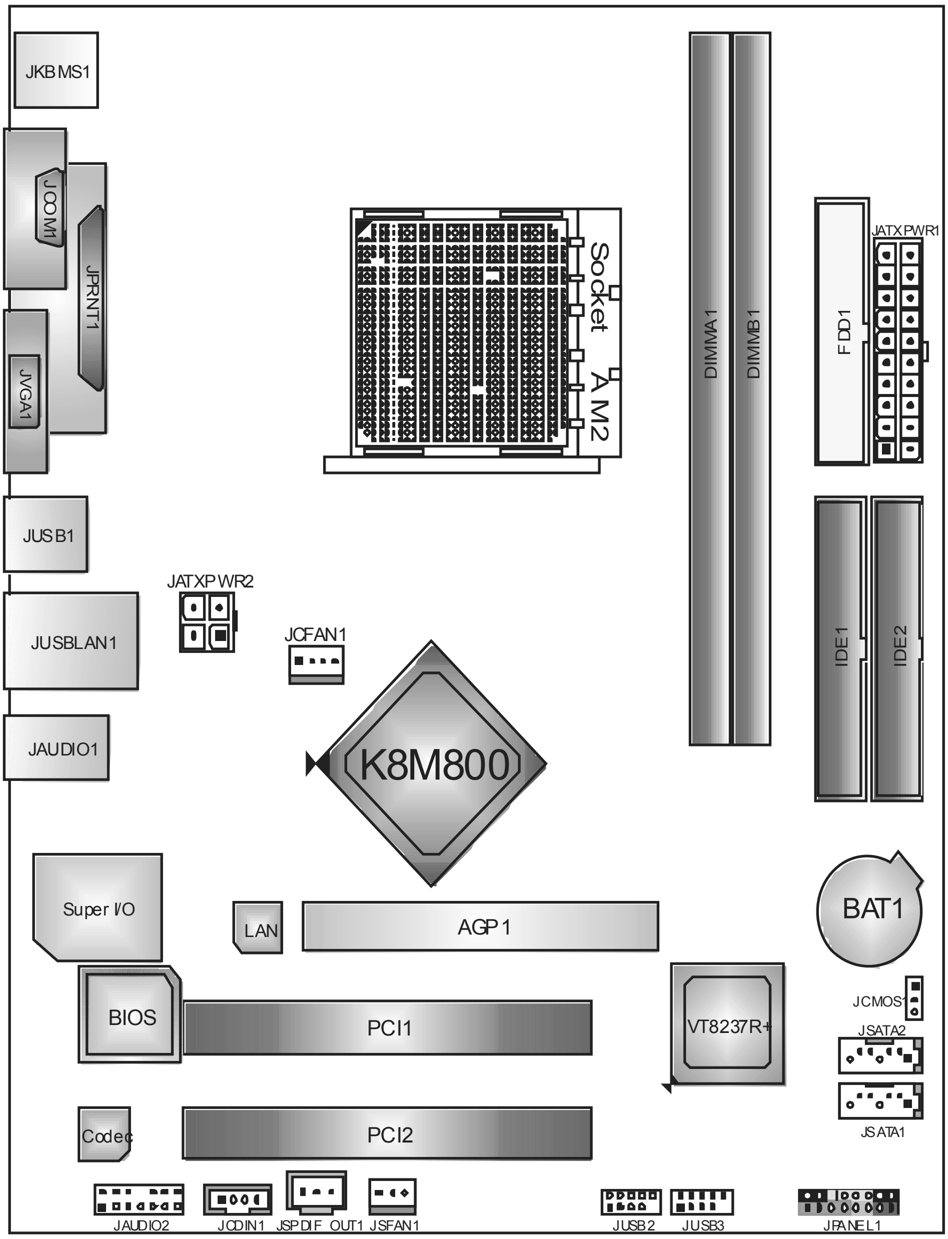
SPEC		
CPU	Socket AM2 AMD Sempron processors	Supports Hyper Transport and Cool-n-Quiet
FSB	Support HyperTransport	Supports up to 800MHz Bandwidth
Chipset	K8M800 VT8237R+	
Super I/O	ITE IT8705 Provides the most commonly used legacy Super I/O functionality. Low Pin Count Interface	Environment Control initiatives, H/W Monitor Fan Speed Controller ITE's "Smart Guardian" function
Main Memory	DIMM Slots x 2 Each DIMM supports 256/512MB & 1GB DDR2 Max Memory Capicity 2GB	Dual Channel Mode DDR2 memory module Supports DDR2 400 / 533 / 667 Registered DIMM and ECC DIMM is not supported
Graphics	Integrated in K8M800 Chipset	Max Shared Video Memory is 64MB
IDE	Integrated IDE Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode	supports PIO Mode 0~4,
SATA	Integrated Serial ATA Controller Data transfer rates up to 1.5 Gb/s.	SATA Version 1.0 specification compliant.
LAN	Realtek RTL8201CL	10 / 100 Mb/s Auto-Negotiation
Sound	ALC655/ALC658	5.1 channels audio out
Slots	AGP slot x1 PCI slot x2	Supports AGP expansion cards Supports PCI expansion cards
On Board Connector	Floppy connector x1 IDE Connector x2 SATA Connector x2 Front Panel Connector x1 Front Audio Connector x1 CD-in Connector x1 S/PDIF out connector x1 CPU Fan header x1 System Fan header x1 CMOS clear header x1 USB connector x2	Each connector supports 2 Floppy drives Each connector supports 2 IDE device Each connector supports 1 SATA devices Supports front panel facilities Supports front panel audio function Supports CD audio-in function Supports digital audio out function CPU Fan power supply (with Smart Fan function) System Fan Power supply Restore CMOS data to factory default Each connector supports 2 front panel USB ports

SPEC			
	Power Connector (20pin)	x1	Connects to Power supply
	Power Connector (4pin)	x1	Connects to Power supply
Back Panel I/O	PS/2 Keyboard	x1	Connects to PS/2 Keyboard
	PS/2 Mouse	x1	Connects to PS/2 Mouse
	Serial Port	x1	Connects to various types of device
	Printer Port	x1	Connects to various types of device
	VGA port	x1	Connects to D-SUB Screen
	LAN port	x1	Connects to RJ-45 ethernet cable
	USB Port	x4	Connects to USB devices
	Audio Jack	x3	Provide Audio-In/Out and microphone connection
Board Size	197 x 243 (mm)		Micro ATX Size Board
Special Features	RAID 0 / 1 support		
OS Support	Windows 2000 / XP		Biostar Reserves the right to add or remove support for any OS With or without notice.

1.4 Rear Panel Connectors



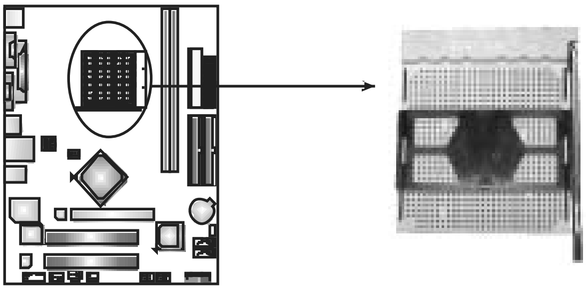
1.5 MOTHERBOARD LAYOUT



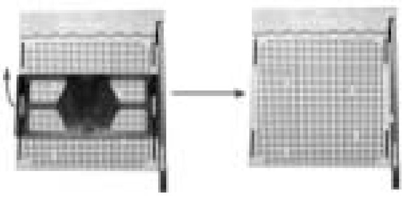
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

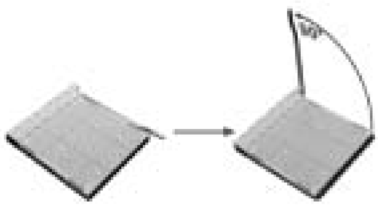
2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



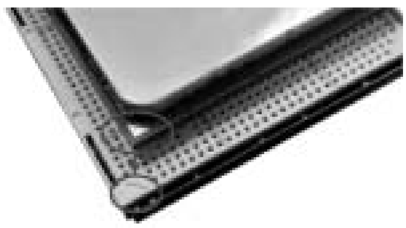
Step 1: Remove the socket protection cap.



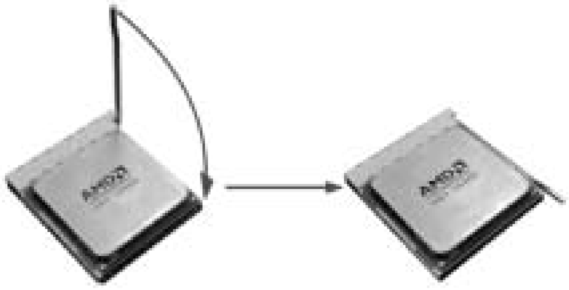
Step 2: Pull the lever toward direction A from the socket and then raise the lever up to a 90-degree angle.



Step 3: Look for the white triangle on socket, and the gold triangle on CPU should point towards this white triangle. The CPU will fit only in the correct orientation.



Step 4: Hold the CPU down firmly, and then close the lever toward direct B to complete the installation.

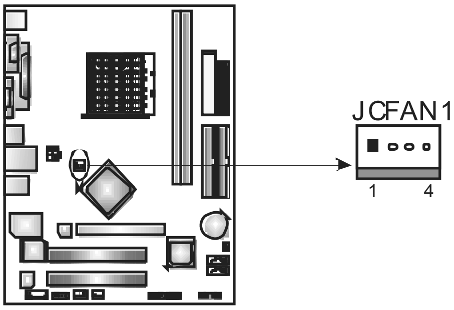


Step 5: Put the CPU Fan on the CPU and buckle it. Connect the CPU FAN power cable to the JCFAN1. This completes the installation.

2.2 FAN HEADERS

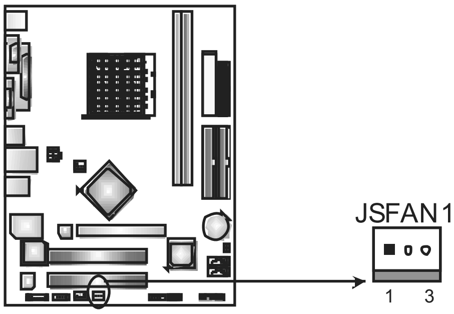
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: CPU Fan Header



Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense
4	Smart Fan Control

JSFAN1: System Fan Header



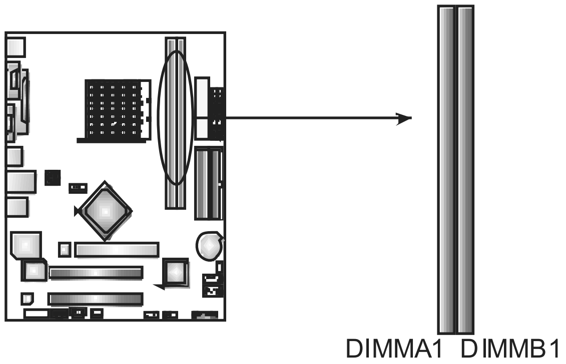
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

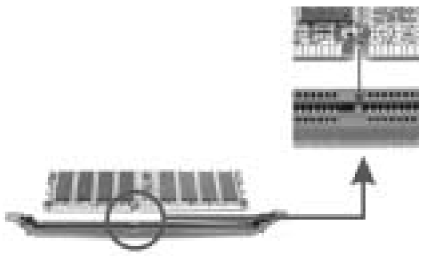
The JCFAN1 and JSFAN1 support 4-pin and 3-pin head connectors. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

A. DDR2 module



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



B. Memory Capacity

DIMM Socket Location	DDR Module	Total Memory Size
DIMMA1	256MB/512MB/1GB *1	Max memory 2GB.
DIMMB1	256MB/512MB/1GB *1	

C. Dual Channel Memory installation

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

Install memory module of the same density in pair, shown in the following table.

Dual Channel Status	DIMMA1	DIMMB1
Disabled	O	X
Disabled	X	O
Enabled	O	O

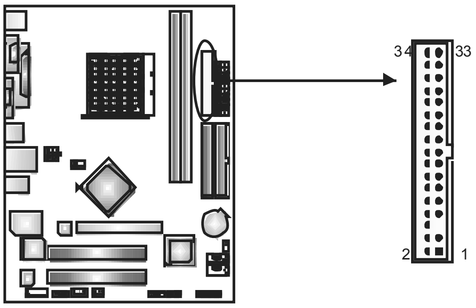
(O means memory installed, X means memory not installed.)

The DRAM bus width of the memory module must be the same (x8 or x16)

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

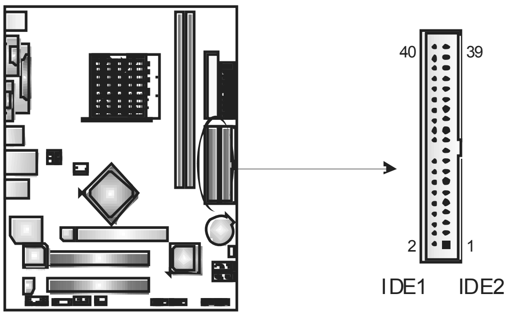
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.



IDE1/IDE2: Hard Disk Connectors

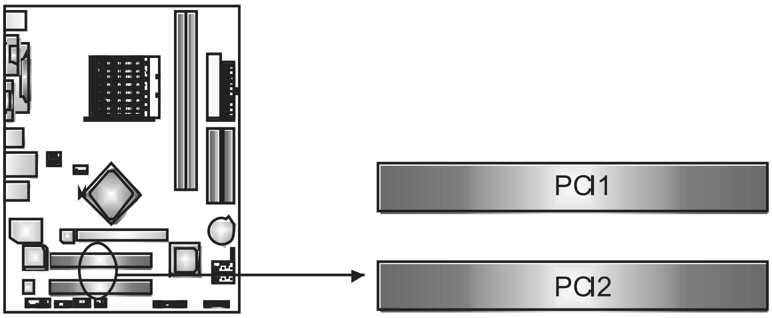
The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.



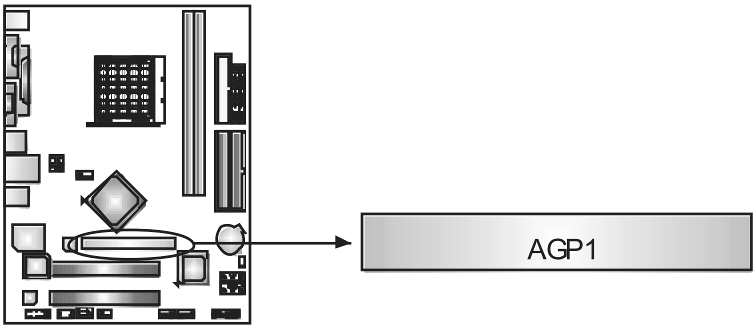
PCI1~PCI2: Peripheral Component Interconnect Slots

This motherboard is equipped with 2 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



AGP1: Accelerated Graphics Port Slot

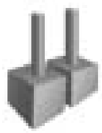
Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.



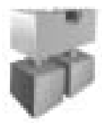
CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".



Pin opened



Pin closed

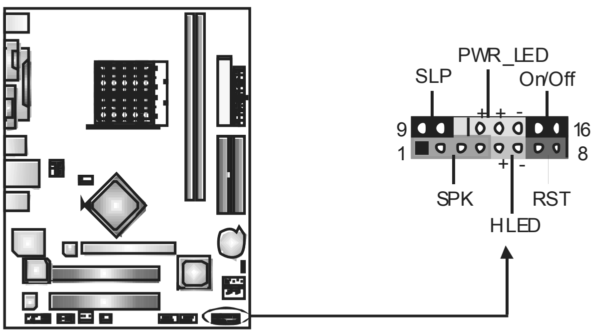


Pin1-2 closed

3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

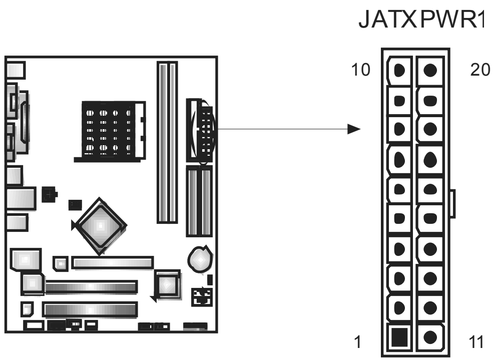
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, Sleep button and speaker connection. It allows user to connect the PC case's front panel switch functions.



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	Sleep control	Sleep button
2	N/A		10	Ground	
3	N/A		11	N/A	N/A
4	Speaker		12	Power LED (+)	Power LED
5	HDD LED (+)	Hard drive LED	13	Power LED (+)	
6	HDD LED (-)		14	Power LED (-)	
7	Ground	Reset button	15	Power button	Power-on button
8	Reset control		16	Ground	

JATXPWR1: ATX Power Source Connector

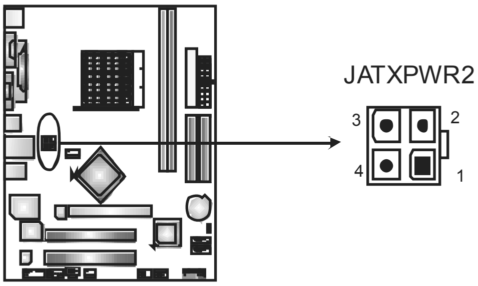
This connector allows user to connect 20-pin power connector on the ATX power supply.



Pin	Assignment
1	+3.3V
2	+3.3V
3	Ground
4	+5V
5	Ground
6	+5V
7	Ground
8	PW_OK
9	StandbyVoltage +5V
10	+12V
11	+3.3V
12	-12V
13	Ground
14	PS_ON
15	Ground
16	Ground
17	Ground
18	-5V
19	+5V
20	+5V

JATXPWR2: ATX Power Source Connector

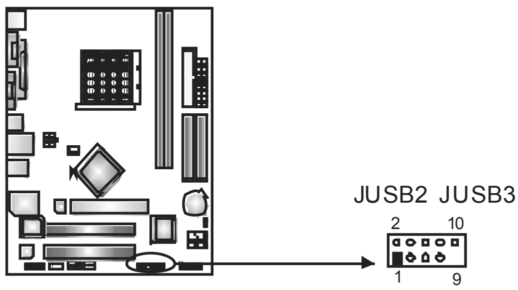
By connecting this connector, it will provide +12V to CPU power circuit.



Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

JUSB1/JUSB2: Headers for USB 2.0 Ports at Front Panel

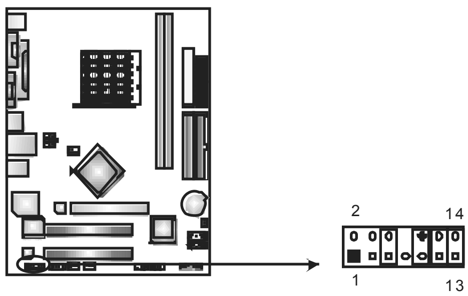
This motherboard provides 2 USB 2.0 headers, which allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	Key
10	NC

JAUDIO2: Front Panel Audio Header

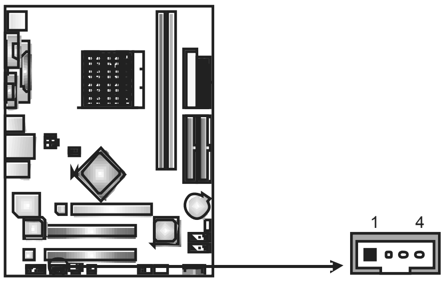
This header allows user to connect the front audio output cable with the PC front panel. It will disable the output on back panel audio connectors.



Pin	Assignment
1	Mic in/center
2	Ground
3	Mic power/Bass
4	Audio power
5	Right line out/ Speaker out Right
6	Right line out/ Speaker out Right
7	Reserved
8	Key
9	Left line out/ Speaker out Left
10	Left line out/ Speaker out Left
11	Right line in/ Rear speaker Right
12	Right line in/ Rear speaker Right
13	Left line in/ Rear speaker Left
14	Left line in/ Rear speaker Left

JCDIN1: CD-ROM Audio-in Connector

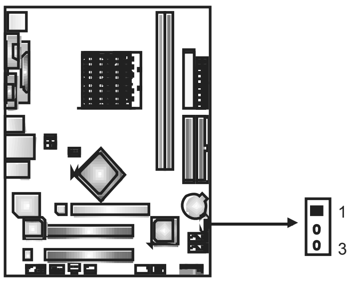
This connector allows user to connect the audio source from the variaty devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc..

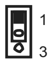


Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

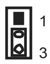
JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.





Pin 1-2 Close:
Normal Operation (Default).



Pin 2-3 Close:
Clear CMOS data.

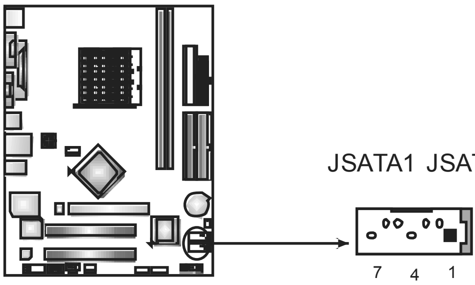
※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 close”.
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

JSATA1~JSATA2: Serial ATA Connectors

The motherboard has a PCI to SATA Controller with 2 channels SATA interface,

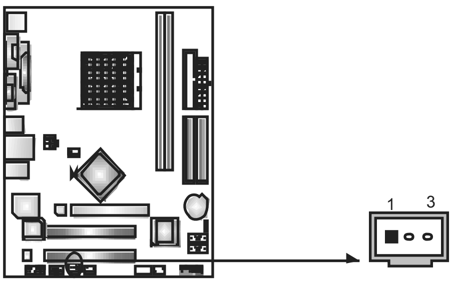
it satisfies the SATA 1.0 spec and with transfer rate of 1.5Gb/s.



Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

JSPDIF_OUT1: Digital Audio out Connectors

This connector allows user to connect the PCI bracket SPDIF output header.



Pin	Assignment
1	+5V
2	SPDIF_OUT1
3	Ground

CHAPTER 4: RAID FUNCTIONS

4.1 OPERATION SYSTEM

Supports Windows XP Home/Professional Edition, and Windows 2000 Professional.

4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

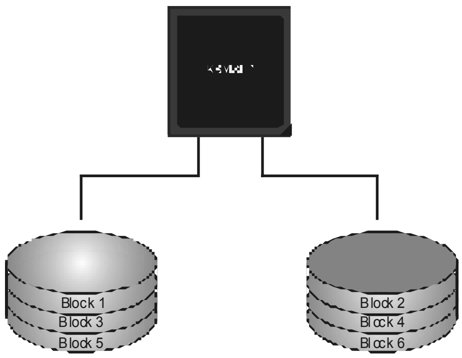
4.3 HOW RAID WORKS

RAID 0:

The controller "stripes" data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- ***Drives:*** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- ***Uses:*** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- ***Benefits:*** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- ***Drawbacks:*** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- ***Fault Tolerance:*** No.



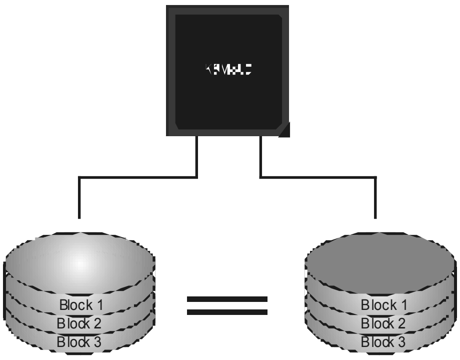
RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- ***Drives:*** Minimum 2, and maximum is 2.
- ***Uses:*** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- ***Benefits:*** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- ***Drawbacks:*** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- ***Fault Tolerance:*** Yes.

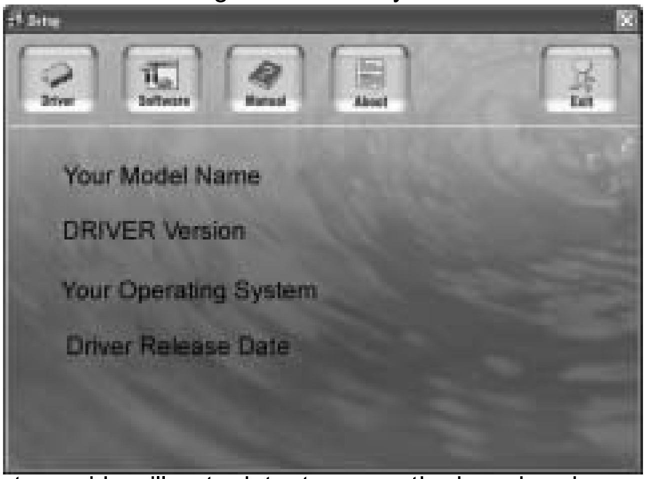


CHAPTER 5: USEFUL HELP

5.1 DRIVER INSTALLATION NOTE

After you installed your operating system, please insert the Fully Setup Driver CD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the CD



The setup guide will auto detect your motherboard and operating system.

> **Note:**
> If this window didn't show up after you insert the Driver CD, please use file browser to locate and execute the file ***SETUP.EXE*** under your optical drive.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver CD. Click on the Manual icon to browse for available manual.

> **Note:**
> You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from
> ***http://www.adobe.com/products/acrobat/readstep2.html***

5.2 AWARD BIOS BEEP CODE

Beep Sound	Meaning
One long beep followed by two short beeps	Video card not found or video card memory bad
High-low siren sound	CPU overheated System will shut down automatically
One Short beep when system boot-up	No error found during POST
Long beeps every other second	No DRAM detected or install

5.3 EXTRA INFORMATION

A. BIOS Update

After you fail to update BIOS or BIOS is invaded by virus, the Boot-Block function will help to restore BIOS. If the following message is shown after boot-up the system, it means the BIOS contents are corrupted.



In this Case, please follow the procedure below to restore the BIOS:

1. Make a bootable floppy disk.
2. Download the Flash Utility "AWDFLASH.exe" from the Biostar website: www.biostar.com.tw
3. Confirm motherboard model and download the respectively BIOS from Biostar website.
4. Copy "AWDFLASH.exe" and respectively BIOS into floppy disk.
5. Insert the bootable disk into floppy drive and press Enter.
6. System will boot-up to DOS prompt.
7. Type *"Awdflash xxxx.bf/sn/py/r"* in DOS prompt.
   (*xxxx* means BIOS name.)
8. System will update BIOS automatically and restart.
9. The BIOS has been recovered and will work properly.

B. CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
   (See "Close CMOS Header: JCMOS1" section)
2. Wait for seconds.
3. Power on the system again.

5.4 TROUBLESHOOTING

Probable	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on keyboard does not turn on.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from hard disk drive, can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message says "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

CHAPTER 6: WARPSPEEDER™

6.1 INTRODUCTION

[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

6.2 SYSTEM REQUIREMENT

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

6.3 INSTALLATION

1. Execute the setup execution file, and then the following dialog will pop up. Please click "Next" button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. If the "Launch the WarpSpeeder Tray Utility" checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click "Finish" button.



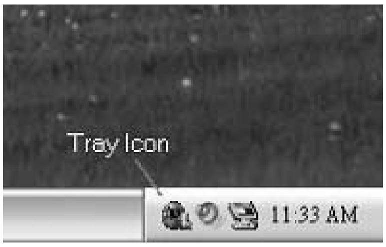
Usage:

The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

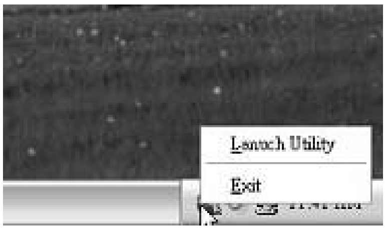
6.4 WARPSPEEDER™

1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.



This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The "Launch Utility" item in the popup menu has the same function as mouse left-click on tray icon and "Exit" item will close Tray Icon utility if selected.



2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer to the following figure; the utility's first window you will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI clock information.

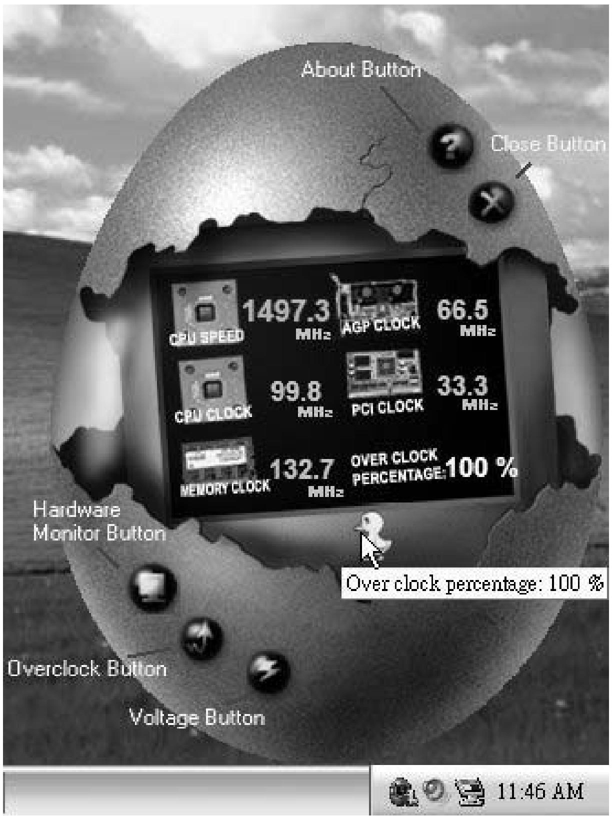
b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Man walking→overclock percentage from 100% ~ 110 %

Panther running→overclock percentage from 110% ~ 120%

Car racing→overclock percentage from 120% ~ above



3. Voltage Panel

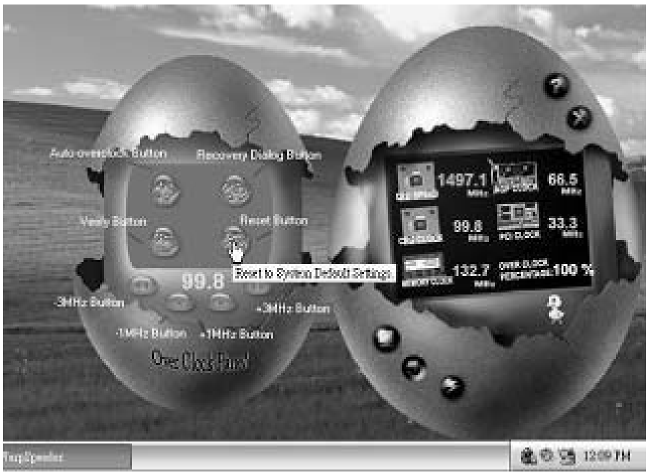
Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is "No". If you want to get the best performance of overclocking, we recommend you click the option "Yes".



4. Overclock Panel

Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

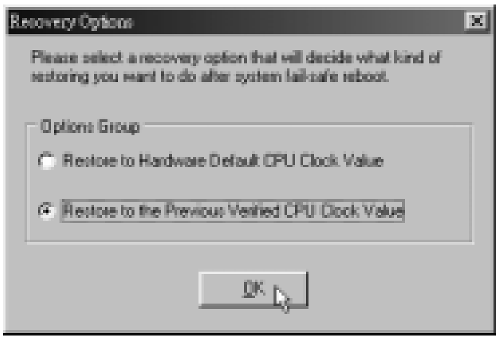


Overclock Panel contains the these features:

a. "–3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning:
Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



c. "Auto-overclock button": User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

d. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note:

Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.

5. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.



6. About Panel

Click the “about” button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard’s BIOS model and the Version number of [WarpSpeeder™] utility.



Note:

Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels’ functions. This property can make [WarpSpeeder™] utility more robust.

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APPENDENCIES: SPEC IN OTHER LANGUAGE

GERMAN

Spezifikationen		
CPU	Sockel AM2 AMD Sempron Prozessoren	Unterstützt Hyper Transport und Cool'n'Quiet
FSB	Unterstützt HyperTransport mit einer Bandbreite von bis zu 800 MHz	
Chipsatz	K8M800 VT8237R+	
Super E/A	ITE IT8705 Bietet die häufig verwendeten alten Super E/A-Funktionen. Low Pin Count-Schnittstelle	Umgebungskontrolle, Hardware-Überwachung Lüfterdrehzahl-Controller "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR2 DIMM-Steckplätze x 2 Jeder DIMM unterstützt 256/512MB & 1GB DDR2. Max. 2GB Arbeitsspeicher	Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 400 / 533 / 667 registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
Grafik	Integrierter K8M800 Chipsatz	Max. 64MB gemeinsam benutzter Videospeicher
IDE	Integrierter IDE-Controller Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus	Unterstützt PIO-Modus 0~4,
SATA	Integrierter Serial ATA-Controller Datentransferrate bis zu 1.5Gb/s	Konform mit der SATA-Spezifikation Version 1.0.
LAN	Realtek RTL8201CL 10 / 100 Mb/s	Auto-Negotiation
Audio-Codec	ALC655/ALC658	6-Kanal-Audioausgabe
Steckplätze	AGP-Steckplatz x1 PCI-Steckplatz x2	
Onboard-Anschluss	Diskettenlaufwerkanschluss x1 IDE-Anschluss x2 SATA-Anschluss x2 Fronttafelanschluss x1	Jeder Anschluss unterstützt 2 Diskettenlaufwerke Jeder Anschluss unterstützt 2 IDE-Laufwerke Jeder Anschluss unterstützt 1 SATA-Laufwerk Unterstützt die Fronttafelfunktionen

Spezifikationen			
	Front-Audioanschluss	x1	Unterstützt die Fronttafel-Audioanschlussfunktion
	CD-IN-Anschluss	x1	Unterstützt die CD Audio-In-Funktion
	S/PDIF- Ausgangsanschluss	x1	Unterstützt die digitale Audioausgabefunktion
	CPU-Lüfter-Sockel	x1	CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion)
	System-Lüfter-Sockel	x1	System-Lüfter-Stromversorgungsanschluss
	"CMOS löschen"-Sockel	x1	
	USB-Anschluss	x2	Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse
	Stromanschluss (20-polig)	x1	
	Stromanschluss (4-polig)	x1	
Rückseiten-E/A	PS/2-Tastatur	x1	
	PS/2-Maus	x1	
	Druckeranschluss	x1	
	VGA-Anschluss	x1	
	Serieller Anschluss	x1	
	LAN-Anschluss	x1	
	USB-Anschluss	x4	
	Audioanschluss	x3	
Platinengröße.	197 mm (B) X 243 mm (L)		
Sonderfunktionen	Unterstützt RAID 0 / 1		
OS-Unterstützung	Windows 2000 / XP		Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

FRANCE

SPEC		
UC	Socket AM2 Processeurs AMD Sempron	Prend en charge Hyper Transport et Cool'n'Quiet
Bus frontal	Prend en charge Hyper Transport jusqu'à une bande passante de 800 MHz	
Chipset	K8M800 VT8237R+	
Super E/S	ITE IT8705 Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée. Interface à faible compte de broches	Initiatives de contrôle environnementales, Moniteur de matériel Contrôleur de vitesse de ventilateur Fonction "Gardien intelligent" de l'ITE
Mémoire principale	Fentes DDR2 DIMM x 2 Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go Capacité mémoire maximale de 2 Go	Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 400 / 533 / 667 Les DIMM à registres et DIMM sans code correcteurs d'erreurs ne sont pas prises en charge
Graphiques	Integré dans la chipset K8M800	Mémoire vidéo partagée maximale de 64 Mo
IDE	Contrôleur IDE intégré Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133	Prend en charge le mode PIO 0~4,
SATA	Contrôleur Serial ATA intégré : Taux de transfert jusqu'à 1.5 Go/s.	Conforme à la spécification SATA Version 1.0
LAN	Realtek RTL8201CL	10 / 100 Mb/s négociation automatique
Codec audio	ALC655/ALC658 Sortie audio à 6 voies	AC'97 Version 2.3 Sortie S/PDIF
Fentes	Fente AGP x1 Fente PCI x2	
Connecteur embarqué	Connecteur de disquette x1	Chaque connector prend en charge 2 lecteurs de disquettes
	Connecteur IDE x2	Chaque connecteur prend en charge 2 périphériques IDE
	Connecteur SATA x2	Chaque connecteur prend en charge 1 périphérique SATA

SPEC			
	Connecteur du panneau avant	x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avant	x1 x1	Prend en charge la fonction audio du panneau avant
	Connecteur d'entrée CD	x1	Prend en charge la fonction d'entrée audio de CD
	Connecteur de sortie S/PDIF	x1	Prend en charge la fonction de sortie audio numérique
	Embase de ventilateur UC	x1	Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent)
	Embase de ventilateur système	x1	Alimentation électrique du ventilateur système
	Embase d'effacement CMOS	x1	
	Connecteur USB	x2	Chaque connecteur prend en charge 2 ports USB de panneau avant
	Connecteur d'alimentation (20 broches)	x1	
	Connecteur d'alimentation (4 broches)	x1	
E/S du panneau arrière	Clavier PS/2	x1	
	Souris PS/2	x1	
	Port série	x1	
	Port d'imprimante	x1	
	Port VGA	x1	
	Port LAN	x1	
	Port USB	x4	
	Fiche audio	x3	
Dimensions de la carte	197 mm (l) X 243 mm (H)		
Fonctionnalités spéciales	Prise en charge RAID 0 / 1		
Support SE	Windows 2000 / XP		Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.

ITALIAN

SPECIFICA		
CPU	Socket AM2 Processori AMD Sempron	Supporto di Hyper Transport e Cool'n'Quiet
FSB	Supporto di HyperTransport fino a800 MHz di larghezza di banda	
Chipset	K8M800 VT8237R+	
Super I/O	ITE IT8705 Fornisce le funzionalità legacy Super I/O usate più comunemente. Interfaccia LPC (Low Pin Count)	Funzioni di controllo dell'ambiente: Monitoraggio hardware Controller velocità ventolina Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR2 x 2 Ciascun DIMM supporta DDR2 256/512MB e 1GB Capacità massima della memoria 2GB	Modulo di memoria DDR2 a canale doppio Supporto di DDR2 400 / 533 / 667 DIMM registrati e DIMM ECC sono supportati
Grafica	Integrata nel Chipset K8M800	La memoria video condivisa massima è di 64MB
IDE	Controller IDE integrato Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133	Supporto modalità PIO Mode 0-4
SATA	Controller Serial ATA integrato Velocità di trasferimento dei dati fino a 1.5 Gb/s.	Compatibile specifiche SATA Versione 1.0.
LAN	Realtek RTL8201CL	Negoziazione automatica 10 / 100 Mb/s
Codec audio	ALC655/ALC658	Uscita audio 6 canali
Alloggi	Alloggio AGP x1 Alloggio PCI x2	
Connettori su scheda	Connettore floppy x1 Connettore IDE x2 Connettore SATA x2 Connettore pannello frontale x1 Connettore audio frontale x1	Ciascun connettore supporta 2 unità Floppy Ciascun connettore supporta 2 unità IDE Ciascun connettore supporta 1 unità SATA Supporta i servizi del pannello frontale Supporta la funzione audio pannello frontale

SPECIFICA			
	Connettore CD-in	x1	Supporta la funzione input audio CD
	Connettore output SPDIF	x1	Supporta la funzione d'output audio digitale
	Collettore ventolina CPU	x1	Alimentazione ventolina CPU (con funzione Smart Fan)
	Collettore ventolina sistema	x1	Alimentazione ventolina di sistema
	Collettore cancellazione CMOS	x1	
	Connettore USB	x2	Ciascun connettore supporta 2 porte USB pannello frontale
	Connettore alimentazione (20 pin)	x1	
	Connettore alimentazione (4 pin)	x1	
I/O pannello posteriore	Tastiera PS/2	x1	
	Mouse PS/2	x1	
	Porta seriale	x1	
	Porta stampante	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
	Connettore audio	x3	
Dimensioni scheda	197 mm (larghezza) x 243 mm (altezza)		
Caratteristiche speciali	Supporto RAID 0 / 1		
Sistemi operativi supportati	Windows 2000 / XP		Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

SPANISH

Especificación		
CPU	Conector AM2 Procesadores AMD Sempron	Soporta las tecnologías Hyper Transport y Cool'n'Quiet
FSB	Admite HyperTransport con un ancho de banda de hasta 800 MHz	
Conjunto de chips	K8M800 VT8237R+	
Súper E/S	ITE IT8705 Le ofrece las funcionalidades heredadas de uso más común Súper E/S. Interfaz de cuenta Low Pin	Iniciativas de control de entorno, Monitor hardware Controlador de velocidad de ventilador Función "Guardia inteligente" de ITE
Memoria principal	Ranuras DIMM DDR2 x 2 Cada DIMM admite DDR de 256/512MB y 1GB Capacidad máxima de memoria de 2GB	Módulo de memoria DDR2 de canal Doble Admite DDR2 de 400 / 533 / 667 No admite DIMM registrados o DIMM no compatibles con ECC
Gráficos	Integrados en el conjunto de chips K8M800	Memoria máxima de vídeo compartida de 64MB
IDE	Controlador IDE integrado Modo bus maestro Ultra DMA 33 / 66 / 100 / 133	Soporte los Modos PIO 0~4,
SATA	Controlador ATA Serie Integrado Tasas de transferencia de hasta 1.5 Gb/s.	Compatible con la versión SATA 1.0.
Red Local	Realtek RTL8201CL	Negociación de 10 / 100 Mb/s
Códecs de sonido	ALC655/ALC658	Salida de sonido de 6 canales
Ranuras	Ranura AGP X1 Ranura PCI X2	
Conectores en placa	Conector disco flexible X1 Conector IDE X2 Conector SATA X2 Conector de panel frontal X1 Conector de sonido frontal X1	Cada conector soporta 2 unidades de disco flexible Cada conector soporta 2 dispositivos IDE Cada conector soporta 1 dispositivos SATA Soporta instalaciones en el panel frontal Soporta funciones de sonido en el panel frontal

Especificación			
	Conector de entrada de CD	X1	Soporta función de entrada de sonido de CD
	Conector de salida S/PDIF	X1	Soporta función de salida de sonido digital
	Cabecera de ventilador de CPU	X1	Fuente de alimentación de ventilador de CPU (con función Smart Fan)
	Cabecera de ventilador de sistema	X1	Fuente de alimentación de ventilador de sistema
	Cabecera de borrado de CMOS	X1	
	Conector USB	X2	Cada conector soporta 2 puertos USB frontales
	Conector de alimentación (20 patillas)	X1	
	Conector de alimentación (4 patillas)	X1	
Panel trasero de E/S	Teclado PS/2	X1	
	Ratón PS/2	X1	
	Puerto serie	X1	
	Puerto de impresora	X1	
	Puerto VGA	X1	
	Puerto de red local	X1	
	Puerto USB	X4	
	Conector de sonido	X3	
Tamaño de la placa	197 mm. (A) X 243 Mm. (H)		
Funciones especiales	Admite RAID 0 / 1		
Soporte de sistema operativo	Windows 2000 / XP		Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.

PORTUGUESE

ESPECIFICAÇÕES		
CPU	Socket AM2 Processadores AMD Sempron	Suporta as tecnologias Hyper Transport e Cool'n'Quiet
FSB	Suporta a tecnologia HyperTransport com uma largura de banda até800 MHz	
Chipset	K8M800 VT8237R+	
Especificação Super I/O	ITE IT8705 Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O. Interface LPC (Low Pin Count).	Iniciativas para controlo do ambiente Monitorização do hardware Controlador da velocidade da ventoinha Função "Smart Guardian" da ITE
Memória principal	Ranhuras DIMM DDR2 x 2 Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB Capacidade máxima de memória: 2 GB	Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 400 / 533 / 667 Os módulos DIMM registados e os DIMM ECC são suportados
Placa gráfica	Integrada no chipset K8M800	Memória de vídeo máxima partilhada: 64 MB
IDE	Controlador IDE integrado Modo Bus master Ultra DMA 33 / 66 / 100 / 133	Suporta o modo PIO 0~4,
SATA	Controlador Serial ATA integrado Velocidades de transmissão de dados até 1.5 Gb/s.	Compatibilidade com a especificação SATA versão 1.0.
LAN	Realtek RTL8201CL	Auto negociação de 10 / 100 Mb/s
Codec de som	ALC655/ALC658	Saída de áudio de 6 canais
Ranhuras	Ranhura AGP x1 Ranhura PCI x2	
Conectores na placa	Conector da unidade de disquetes x1 Conector IDE x2 Conector SATA x2 Conector do painel frontal x1	Cada conector suporta 2 unidades de disquetes Cada conector suporta 2 dispositivos IDE Cada conector suporta 1 dispositivo SATA Para suporte de várias funções no painel frontal

ESPECIFICAÇÕES			
	Conector de áudio frontal	x1	Suporta a função de áudio no painel frontal
	Conector para entrada de CDs	x1	Suporta a entrada de áudio a partir de CDs
	Conector de saída S/PDIF	x1	Suporta a saída de áudio digital
	Conector da ventoinha da CPU	x1	Alimentação da ventoinha da CPU (com a função Smart Fan)
	Conector da ventoinha do sistema	x11	Alimentação da ventoinha do sistema
	Conector para limpeza do CMOS	x1	
	Conector USB	x2	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (20 pinos)	x1	
	Conector de alimentação (4 pinos)	x1	
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	
	Rato PS/2	x1	
	Porta série	x1	
	Porta para impressora	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
	Tomada de áudio	x3	
Tamanho da placa	197 mm (L) X 243 mm (A)		
Características especiais	Suporta as funções RAID 0 / 1		
Sistemas operativos suportados	Windows 2000 / XP		A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.

POLISH

SPEC		
Procesor	Socket AM2 AMD Sempron Procesory	Obsługa Hyper Transport oraz Cool'n'Quiet
FSB	Obsługa HyperTransport o szerokości pasma do800 MHz	
Chipset	K8M800 VT8237R+	
Pamięć główna	Gniazda DDR2 DIMM x 2 Każde gniazdo DIMM obsługuje moduły 256/512MB oraz 1GB DDR2 Maks. wielkość pamięci 2GB	Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 400 / 533 / 667 Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE IT8705 Zapewnia najbardziej powszechne funkcje Super I/O. Interfejs Low Pin Count	Funkcje kontroli warunków pracy, Monitor H/W Kontroler prędkości wentylatora Funkcja ITE "Smart Guardian"
Grafika	Zintegrowana w chipsecie K8M800	Maks. wielkość współdzielonej pamięci video wynosi 64MB
IDE	Zintegrowany kontroler IDE Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master	obsługa PIO tryb 0~4,
SATA	Zintegrowany kontroler Serial ATA Transfer danych do 1.5 Gb/s.	Zgodność ze specyfikacją SATA w wersji 1.0.
LAN	Realtek RTL8201CL	10 / 100 Mb/s z automatyczną negocjacją szybkości
Kodek dźwiękowy	ALC655/ALC658	6 kanałowe wyjście audio
Gniazda	Gniazdo AGP x1 Gniazdo PCI x2	
Złącza wbudowane	Złącze napędu dyskietek x1 Złącze IDE x2 Złącze SATA x2 Złącze panela przedniego x1 Przednie złącze audio x1 Złącze wejścia CD x1	Każde złącze obsługuje 2 napędy dyskietek Każde złącze obsługuje 2 urządzenia IDE Każde złącze obsługuje 1 urządzenie SATA Obsługa elementów panela przedniego Obsługa funkcji audio na panelu przednim Obsługa funkcji wejścia audio CD

SPEC			
	Złącze wyjścia S/PDIF	x1	Obsługa funkcji cyfrowego wyjścia audio
	Złącze główkowe wentylatora procesora	x1	Zasilanie wentylatora procesora (z funkcją Smart Fan)
	Złącze główkowe wentylatora systemowego	x1	Zasilanie wentylatora systemowego
	Złącze główkowe kasowania CMOS	x1	
	Złącze USB	x2	Każde złącze obsługuje 2 porty USB na panelu przednim
	Złącze zasilania (20 pinowe)	x1	
	Złącze zasilania (4 pinowe)	x1	
Back Panel I/O	Klawiatura PS/2	x1	
	Mysz PS/2	x1	
	Port szeregowy	x1	
	Port drukarki	x1	
	Port VGA	x1	
	Port LAN	x1	
	Port USB	x4	
	Gniazdo audio	x3	
Wymiary płyty	197 mm (S) X 243 mm (W)		
Funkcje specjalne	Obsługa RAID 0 / 1		
Obsluga systemu operacyjnego	Windows 2000 / XP		Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

RUSSIAN

СПЕЦ		
CPU (центральный процессор)	Гнездо AM2 Процессоры AMD Sempron	Поддержка Hyper Transport и Cool'n'Quiet
FSB	Поддержка HyperTransport с пропускной способностью до800МГц	
Набор микросхем	K8M800 VT8237R+	
Основная память	Слоты DDR2 DIMM x 2 Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ DDR2 Максимальная ёмкость памяти 2 ГБ	Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 400 / 533 / 667 Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE IT8705 Обеспечивает наиболее используемые действующие функциональные возможности Super I/O. Интерфейс с низким количеством выводов	Инициативы по охране окружающей среды, Аппаратный монитор Регулятор скорости Функция ITE "Smart Guardian" (Интеллектуальная защита)
Графика	Встроенная в набор микросхем K8M800	Максимальная совместно используемая видео память составляет 64 МБ
IDE	Встроенное устройство управления встроенными интерфейсами устройств	Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA	скорость передачи данных до 1.5 гигабит/с. Соответствие спецификации SATA версия 1.0.
Локальная сеть	Realtek RTL8201CL	Автоматическое согласование 10 / 100 Мб/с
Звуковой кодек	ALC655/ALC658	Шестиканальный звуковой выход
Слоты	Слот AGP x1 Слот PCI x2	
Встроенный разъём	Разъём НГМД x1	Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках
	Разъём IDE x2	Каждый разъём поддерживает 2 встроенных интерфейса накопителей
	Разъём SATA x2	Каждый разъём поддерживает 1 устройство SATA
	Разъём на лицевой панели x1	Поддержка устройств на лицевой панели

СПЕЦ			
	Входной звуковой разъём	x1	Поддержка звуковых функций на лицевой панели
	Разъём ввода для CD	x1	Поддержка функции ввода для CD
	Разъём вывода для S/PDIF	x1	Поддержка вывода цифровой звуковой функции
	Контактирующее приспособление вентилятора центрального процессора.		Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора)
	Контактирующее приспособление вентилятора системы	x1	Источник питания для вентилятора системы
	Открытое контактирующее приспособление CMOS	x1	
	USB-разъём	x2	Каждый разъём поддерживает 2 USB-порта на лицевой панели
	Разъем питания (20 вывод)	x1	
	Разъем питания (4 вывод)	x1	
Задняя панель средств ввода-вывода	Клавиатура PS/2	x1	
	Мышь PS/2	x1	
	Последовательный порт	x1	
	Порт подключения принтера	x1	
	Порт VGA	x1	
	Порт LAN	x1	
	USB-порт	x4	
	Гнездо для подключения наушников	x3	
Размер панели	197 мм (Ш) X 243 мм (В)		
Специальные технические характеристики	Поддержка RAID 0/ 1		
Поддержка OS	Windows 2000 / XP		Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.

ARABIC

المواصفات		
وحدة لمعلجة المركزية	مقبس AM2 معالجات AMD Sempron	تدعم تقنية Hyper Transport و Cool'n'Quiet
النقل الأمامي لجانبي	تردد 800 بترددي يصل إلى تدعم تقنية HyperTransport	
مجموعة لشرائح	K8M800 VT8237R+	
الذاكرة الرئيسية	فتحة DDR2 DIMM عدد 2 سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل فتحة ميجا بايت و 1 جيجا بايت 256/512 سعة ذاكرة قصوى 2 جيجا بايت	مزدوجة قناة DDR2 وحدة ذاكرة سعات 400/533 / 667 ميجا بايت DDR2 تدعم الذاكرة من نوع ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة
Super I/O	ITE IT8705 الأكثر استخداماً. Super I/O توفر وظيفة تدعم تقنية Low Pin Count Interface	وسائل لتحكم في لبيئة: مراقب لمعرفة حالة الأجهزة مراقب في سرعة لمروحة وظيفة "Smart Guardian" من ITE
بطاقة الرسومات	K8M800 مدمجة في رقائق	ميجابايت 64 أقصى سعة لذاكرة لفيديو لمشتركة
منفذ IDE	متحكم IDE متكامل نقل بتقنية Ultra DMA 33 / 66 / 100 / 133 وضع رئيسي	دعم وضع PIO Mode 0~4
SATA	متحكم Serial ATA متكامل نقل البيانات بسرعات تصل إلى 1.5 جيجابت/ثانية.	مطابقة لمواصفات SATA الإصدار 1.0.
شبكة داخلية	Realtek RTL8201CL	تفاوض تلقائي 100/10 ميجا بايت /ثانية
كوديك الصوت	ALC655/ALC658	قنوات لخرج الصوت 6
الفتحات	فتحة AGP عدد 1 فتحة PCI عدد 2	
المنافذ على سطح اللوحة	منفذ محرك أقراص مرنة عدد 1 منفذ IDE عدد 2 منفذ SATA عدد 2 منفذ اللوحة الأمامية عدد 1	يدعم محركين للأقراص لمرنة يدعم كل منفذ IDE اثنين من أجهزة يدعم كل منفذ SATA واحد من أجهزة يدعم تجهيزات اللوحة الأمامية

المواصفات		
	منفذ الصوت الأمامي عدد 1	يدعم وظيفة الصوت بالوحة الأمامية
	منفذ CD-IN عدد 1	يدعم وظيفة دخل صوت القرص المدمج
	منفذ خرج S/PDIF عدد 1	يدعم وظيفة خرج الصوت الرقمي
	وصلة مروحة وحدة المعالجة المركزية عدد 1	لتوصيل الطاقة لمروحة وحدة المعالجة (مع وظيفة Smart Fan)
	وصلة مروحة النظام عدد 1	لتوصيل الطاقة لمروحة النظام
	وصلة مسح CMOS عدد 1	
	منفذ USB عدد 2	بالوحة الأمامية USB يدعم كل منفذ قتحتي
	منفذ توصيل الطاقة (20 دبوس) عدد 1	
	منفذ توصيل الطاقة (4 دبابيس) عدد 1	
منافذ دخل/خرج اللوحة الخلفية	لوحة مفاتيح PS/2 عدد 1	
	ماوس PS/2 عدد 1	
	منفذ تسلسلي عدد 1	
	منفذ طابعة عدد 1	
	منفذ VGA عدد 1	
	منفذ شبكة اتصال محلية عدد 1	
	منافذ USB عدد 4	
	مقبس صوت عدد 3	
حجم اللوحة	197 مم (عرض) X 243 مم (ارتفاع)	
مزايا خاصة	تدعم تقنية RAID 0 / 1	
دعم أنظمة التشغيل	Windows 2000 / XP	تحتفظ Biostar بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار.

JAPANESE

仕様		
CPU	Socket AM2 AMD Sempronプロセッサ	ハイパートランスポートとクールアンドクワイアットをサポートします
FSB	800 MHzのバンド幅までハイパートランスポートをサポートします	
チップセット	K8M800 VT8237R+	
メインメモリ	DDR2 DIMMスロット x 2 各DIMMは 256/512MB & 1GB DDR2をサポート 最大メモリ容量2GB	デュアル チャンネルモードDDR2メモリモジュール DDR2 400 / 533 / 667をサポート 登録済みDIMMとECC DIMMはサポートされません
Super I/O	ITE IT8705 もっとも一般に使用されるレガシーSuper I/O機能を採用しています。 低ピンカウントインターフェイス	環境コントロールイニシアチブ、 H/Wモニター ファン速度コントローラ/ モニター ITEの「スマートガーディアン」機能
グラフィックス	K8M800チップセットに統合	最大の共有ビデオメモリは64MBです
IDE	統合IDEコントローラ Ultra DMA 33 / 66 / 100 / 133バスマスタモード	PIO Mode 0~4のサポート、
SATA	統合シリアルATAコントローラ 最高11.5 Gb/秒のデータ転送速度	SATAバージョン1.0仕様に準拠。
LAN	Realtek RTL8201CL	10 / 100 Mb/sオートネゴシエーション
サウンドCodec	ALC655/ALC658	6チャンネルオーディオアウト
スロット	AGPスロット x1 PCIスロット x2	
オンボードコネクタ	フロッピーコネクタ x1 IDEコネクタ x2 SATAコネクタ x2 フロントパネルコネクタ x1	各コネクタは2つのフロッピードライブをサポートします 各コネクタは2つのIDEデバイスをサポートします 各コネクタは1つのSATAデバイスをサポートします フロントパネル機能をサポートします

仕様			
	フロントオーディオコネクタ	x1	フロントパネル オーディオ機能をサポートします
	CDインコネクタ	x1	CDオーディオイン機能をサポートし ます
	S/PDIFアウトコネクタ	x1	デジタルオーディオアウト機能をサポートします
	CPUファンヘッダ	x1	CPUファン電源装置(スマートファン機能を搭載)
	システムファンヘッダ	x1	システムファン電源装置
	CMOS クリアヘッダ	x1	
	USBコネクタ	x2	各コ ネクタは2つのフロント パネルUSBポートをサポートします
	電源コネクタ(20ピン)	x1	
	電源コネクタ(4ピン)	x1	
背面パネル I/O	PS/2キーボード	x1	
	PS/2マウス	x1	
	シリアルポート	x1	
	プリンタポート	x1	
	VGAポート	x1	
	LANポート	x1	
	USBポート	x4	
	オーディオジャック	x3	
ボードサイズ	197 mm (幅) X 243 mm (高さ)		
特殊機能	RAID 0 / 1 のサポート		
OSサポート	Windows 2000 / XP		Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

2006/07/26

K8M800 Micro AM2 BIOS Setup

BIOS Setup

Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports AMD processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR SDRAM (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the AMD CPU.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

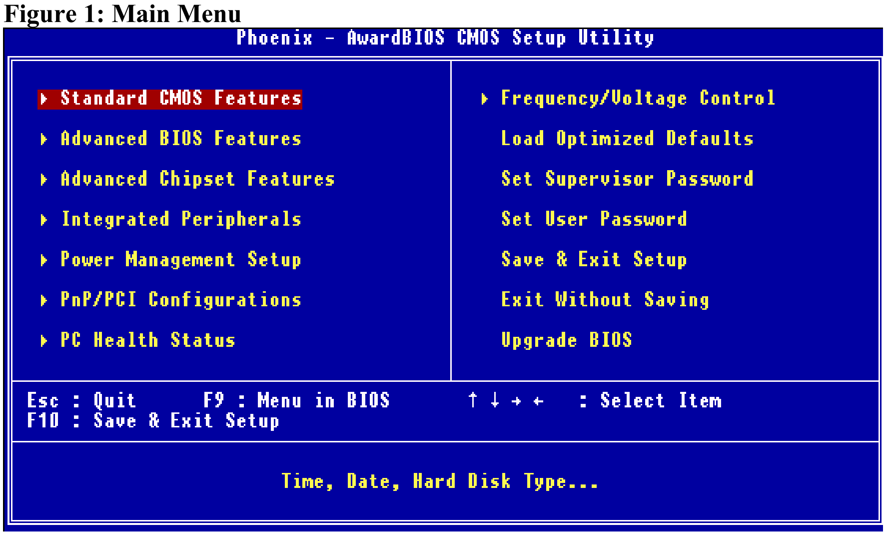
Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

> *!! WARNING !!*
>
> The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

- **Figure 1: Main Menu**



Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Frequency/ Voltage Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use. Not properly change the voltage and clock may cause the CPU or M/B damage!)**

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.



Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.



Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.



Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.



Exit Without Saving

Abandon all changes made during the current session and exit setup. Confirmation message will be displayed before proceeding.



Upgrade BIOS

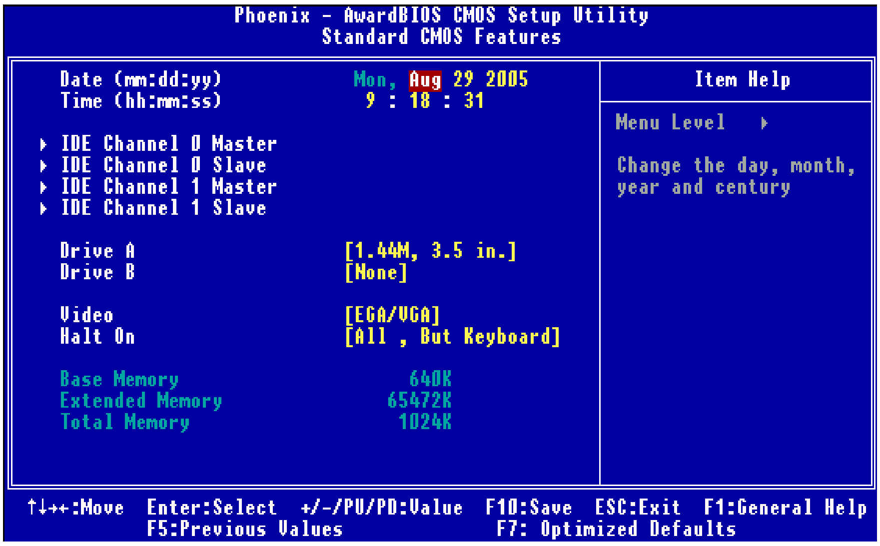
This submenu allows you to upgrade bios.



2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

- **Figure 2: Standard CMOS Setup**



Main Menu Selections

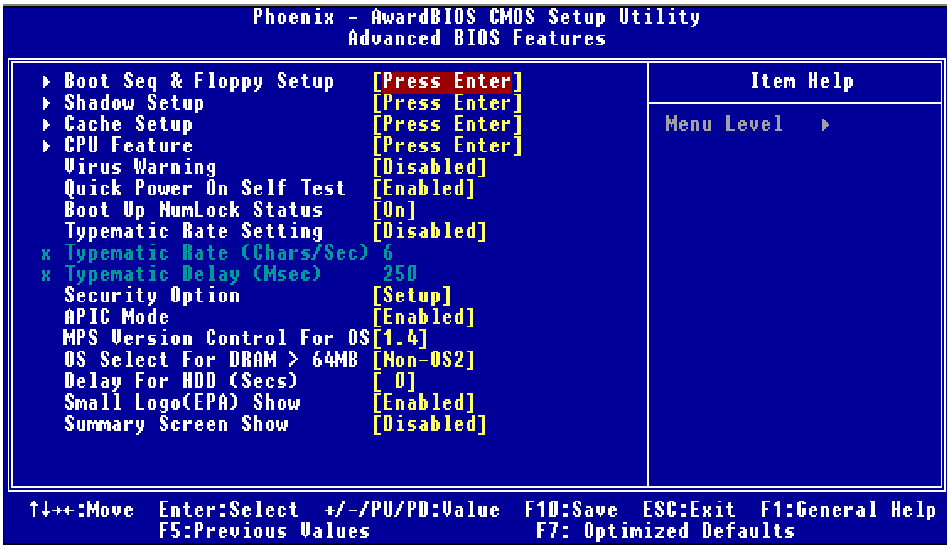
This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Primary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

3 Advanced BIOS Features

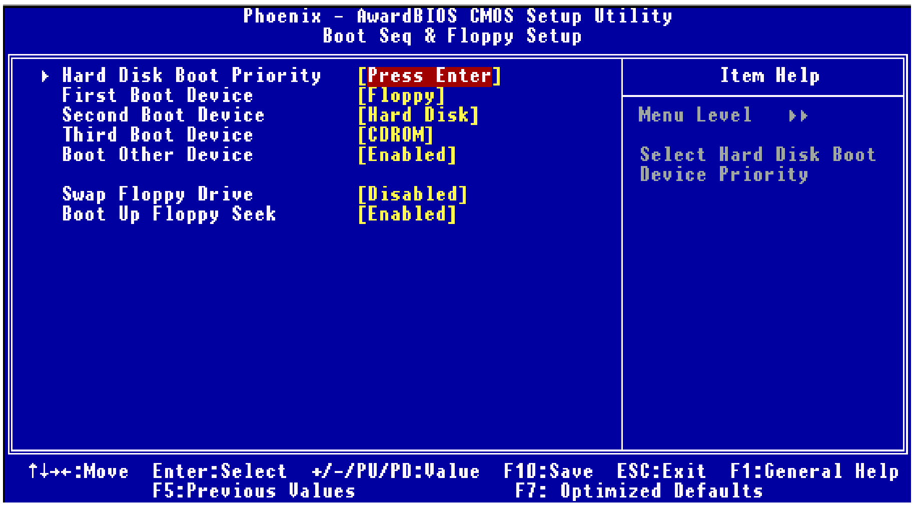
■ **Figure 3: Advanced BIOS Setup**



Boot Seq & Floppy Setup

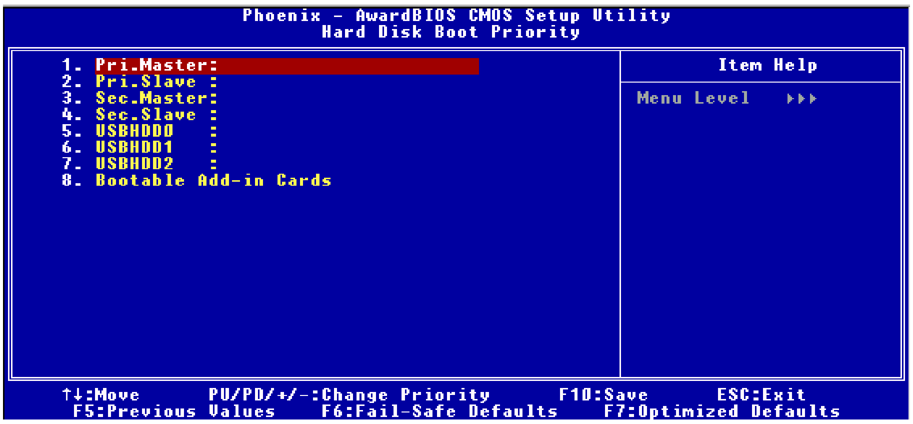
This item allows you to setup boot seq & Floppy.

- **Figure 3.1: Boot Seq & Floppy Setup**



Hard Disk Boot Priority
These BIOS attempt to arrange the Hard Disk boot sequence automatically.
This will depend on which Hard Disk is installed.

- **Figure 3.1.1: Hard Disk Boot Priority**



The Choices: Pri. Master, Pri. Slave, Sec. Master, Sec, Slave, USB HDD0, USB HDD1, USB HDD2, and Bootable Add-in Cards.

First/ Second/ Third/ Boot Other Device
These BIOS attempt to load the operating system from the devices in the sequence selected in these items.
The Choices: Floppy (default), LS120, Hard Disk, SCSI, CDROM, ZIP100, LAN, Disabled.

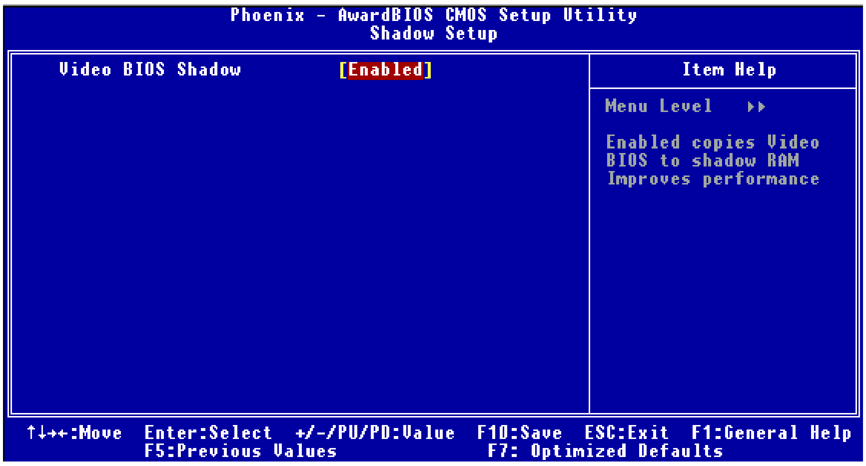
Swap Floppy Drive
For systems with two floppy drives, this option allows you to swap logical drive assignments.
The Choices: Disabled (default), Enabled.

Boot Up Floppy Seek
Enabling this option will test the floppy drives to determine if they have 40 or 80 tracks. Disabling this option reduces the time it takes to boot-up.
The Choices: **Enabled** (default), Disabled

Shadow Setup

This item allows you to setup cache & shadow setup.

- **Figure 3.2: Shadow Setup**

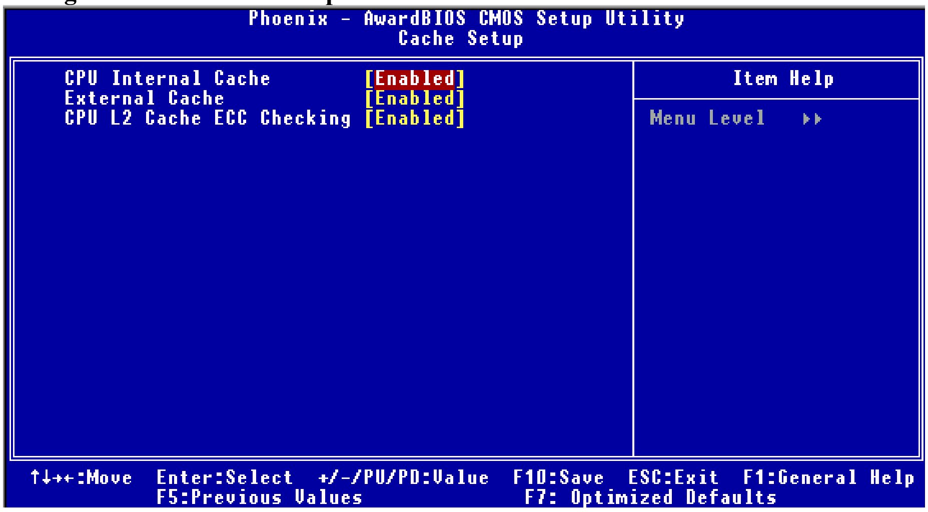


Video BIOS Shadow
Determines whether video BIOS will be copied to RAM for faster execution.

Enabled (default)	Optional ROM is enabled.
Disabled	Optional ROM is disabled.

Cache Setup

- **Figure 3.3: Cache Setup**



CPU Internal Cache
Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

Enabled (default)	Enable cache.
Disabled	Disable cache.

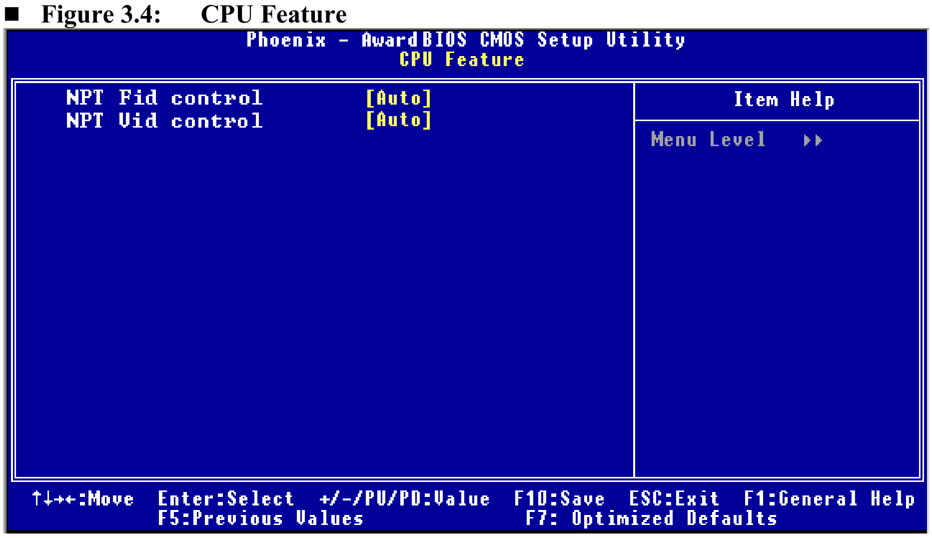
External Cache
This option enables or disables "Level 2" secondary cache on the CPU, which may improve performance.

Enabled (default)	Enable cache.
Disabled	Disable cache.

CPU L2 Cache ECC Checking
This item allows you to enable/disable CPU L2 Cache ECC Checking.
The Choices: Enabled (default), Disabled.

CPU Feature

■ **Figure 3.4: CPU Feature**



NPT Fid control
This function allows you to adjust the frequency ratio of CPU.
The Choices: Auto (default), x4: 800Mhz ~ x25: 5000Mhz (differs from CPU)

NPT Vid control
This function allows you to adjust the CPU voltage.
The Choices: Auto (default), 0.375V ~ 1.550V (differs from CPU)

Virus Warning

This option allows you to choose the VIRUS Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Disabled (default)	Virus protection is disabled.
Enabled	Virus protection is activated.

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Disabled	Normal POST.
Enabled (default)	Enable quick POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.

The Choices: On (default)	Numpad is number keys.
Off	Numpad is arrow keys.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.
The Choices: Disabled (default), Enabled.

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.
The Choices: 6 (default)**,** 8, 10, 12, 15, 20, 24, 30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.
The Choices: 250 (default)**,** 500, 750, 1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

System	A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default)	A password is required to access the Setup Utility only.

This will only apply if passwords are set from the Setup main menu.

APIC Mode

Selecting Enabled enables APIC mode reporting from the BIOS to the operating system.
The Choices: Enabled (default), Disabled

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.
The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.
The Choices: Non-OS2 (default), OS2.

Delay for HDD (Secs)

This item allows you to select the timing of Delay for HDD
The Choices: 0 (default).
Min= 0
Max= 15
Key in a DEC number.

Small LOGO (EPA) Show

This item allows you to select whether the "Small Logo" shows.

Enabled (default)	"Small Logo" shows when system boots up.
Disabled	No "Small Logo" shows when system boots

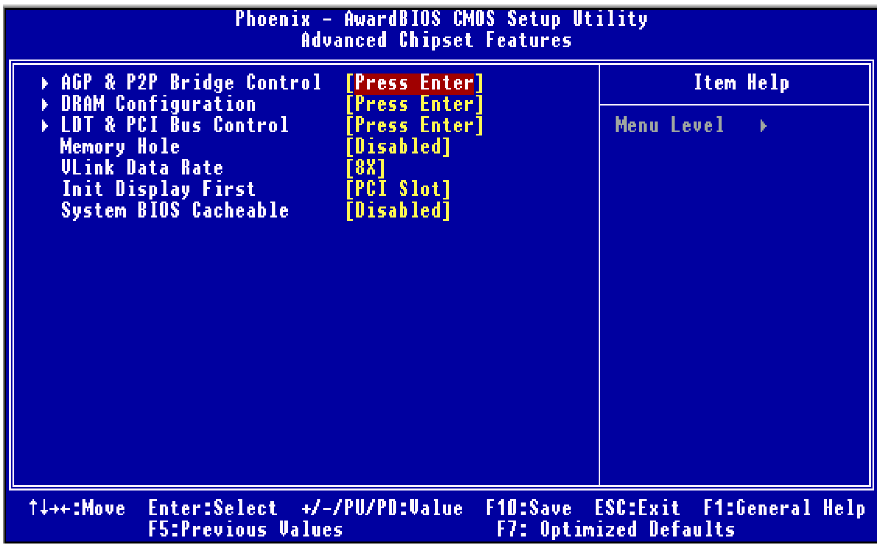
Summary Screen Show

This item allows you to enable/disable the summary screen. Summary screen means system configuration and PCI device listing.
The Choices: Disabled (default), Enabled.

4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

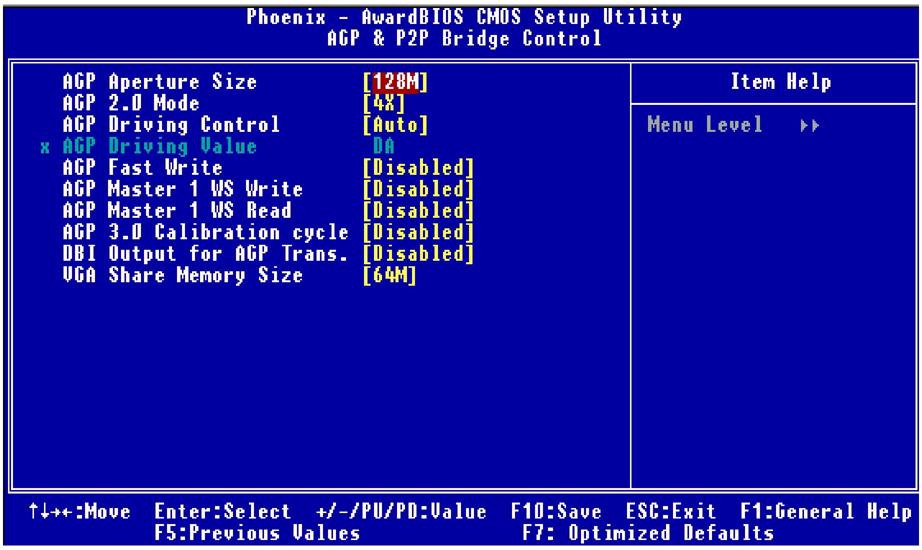
- **Figure 4: Advanced Chipset Setup**



AGP & P2P Bridge Control

If you highlight the literal "Press Enter" next to the "AGP & P2P Bridge Control" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 4.1: AGP & P2P Bridge Control**



AGP Aperture Size

Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 1G,512M,256M, **128M** (default), 64M ,32M.

AGP 2.0 Mode

This item allows you to select the AGP Mode.
The Choices: 4X (default), 2X, 1X.

AGP Driving Control

By choosing "Auto" the system BIOS will the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.
The Choices: Auto (default), Manual.

AGP Driving Value
While AGP driving control item set to “Manual”, it allows user to set AGP driving.
The Choices: DA (default).

AGP Fast Write
This item allows you to disabled or enabled AGP Fast Write.
The Choices: Disabled (default), Enabled.

AGP Master 1 WS Write
When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one-wait states.
The Choices: Disabled (default), Enabled.

AGP Master 1 WS Read
When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one wait states.
The Choices: Disabled (default), Enabled.

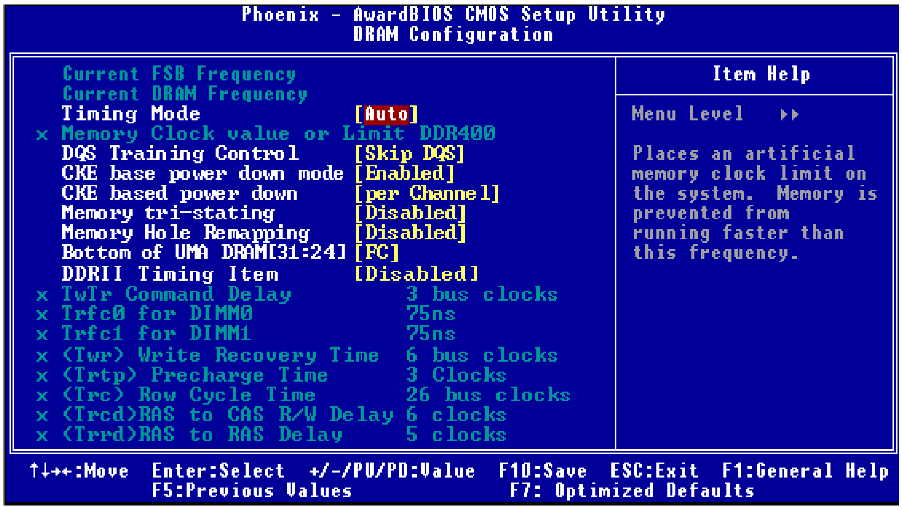
AGP 3.0 Calibration cycle
This item allows you to disabled or enabled AGP 3.0 Calibration Cycle.
The Choices: Disabled (default), Enabled.

DBI Output for AGP Trans
The Choices: Disabled (default), Auto.

VGA Share Memory Size
This item allows you to select the VGA share memory size.
The Choices: 64M (default), 32M, 16M Disabled.

DRAM Configuration

■ **Figure 4.2: DRAM Configuration**



Timing Mode
This item allows you to choose to manually or automatically regulate the DDR Timing.
The Choices: Auto (default), Manual.

DQS Training Control
The Choices: Skip DQS (default), Perform DQS.

CKE base power down mode
The Choices: Enabled (default), Disabled

CKE based power down
The Choices: Per Channel (default), Per CS.

Memory tri-stating
The Choices: Disabled (default), Enabled.

Memory Hole Remapping
The Choices: Disabled (default), Enabled.

Bottom of UMA DRAM [31:24]
The Choices: FC (default), 00~FF.

DDRII Timing Item
The Choices: Disabled (default), Enabled.

TwTr Command Delay
The Choices: 3 bus clocks (default).

TrTfc0 for DIMM0
The Choices: 75ns (default).

TrTfc1 for DIMM1
The Choices: 75ns (default)

<Twr> Write Recovery Time
The Choices: 6 bus clocks (default).

<Trtp> Precharge Time
The Choices: 3 clocks (default).

<Trc> Row Cycle Time
The Choices: 26 bus clocks (default).

<Trcd> RAS to CAS R/W Delay
The Choices: 6 clocks (default).

<Trrd> RAS to RAS Delay
The Choices: 5 clocks (default).

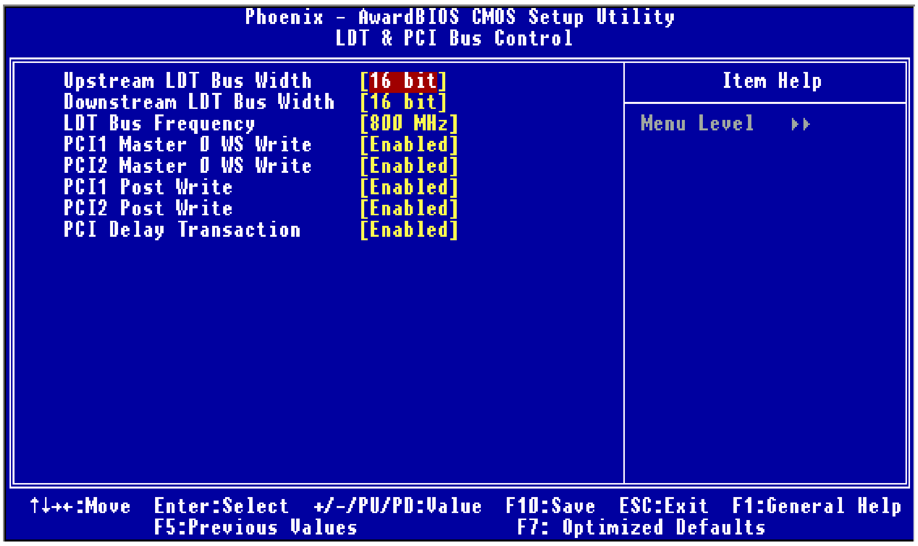
<Trp> Row Precharge Time
The Choices: 6 clocks (default).

<Tras> Minimum RAS Active T
The Choices: 18 bus clocks (default).

LDT & PCI Bus Control

If you highlight the literal "Press Enter" next to the "LDT & PCI Bus Control" label and then press the enter key, it will take you a submenu with the following options

■ **: Figure 4.3: LDT & PCI Bus Control**



Upstream LDT Bus Width
The Choices: 8 bit, **16 bit** (default).

Downstream LDT Bus Width
The Choices: 8 bit, **16 bit** (default).

LDT Bus Frequency
The Choices: 800MHz (default)., Auto, 600MHz, 400MHz, 200MHz.

PCI1 Master 0 WS Write
When enabled, writes to the PCI bus are executed with zero-wait states.
The Choices: Enabled (default), Disabled.

PCI2 Master 0 WS Write
When enabled, writes to the PCI bus are executed with zero-wait states.
The Choices: Enabled (default), Disabled.

PCI1 Post Write
When enabled, writes to the PCI bus are executed with zero-wait states.
The Choices: Enabled (default), Disabled.

PCI2 Post Write
When enabled, writes to the PCI bus are executed with zero-wait states.
The Choices: Enabled (default), Disabled.

PCI Delay Transaction
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles.
Select Enabled to support compliance with PCI specification.
The Choices: Enabled (default), Disabled.

Memory Hole

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved it cannot be cached. The user information of peripherals that need to use this area of system memory usually discussed their memory requirements.
The Choices: Disabled (default), 15M –16M.

Vlink Date Rate

The Choices: 8X (default), 4X

Init Display First

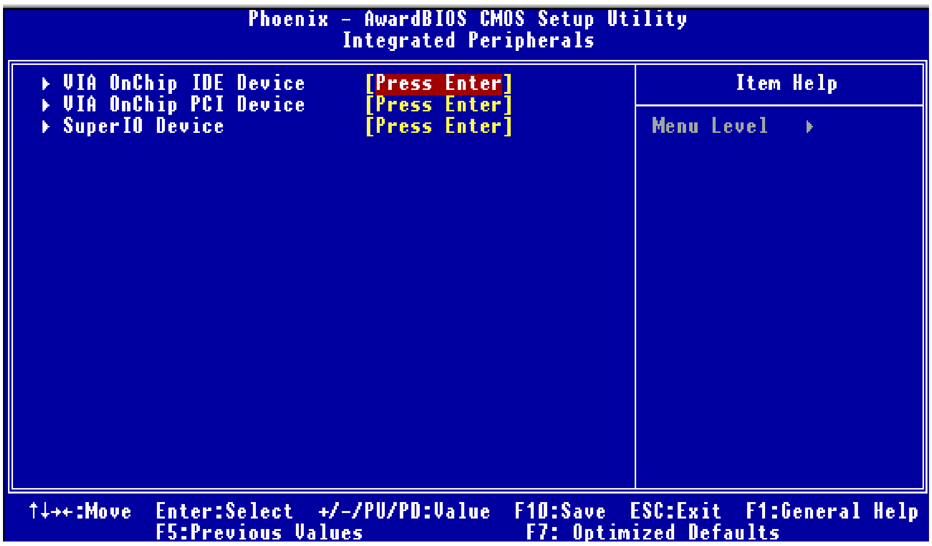
With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.
The Choices: PCI Slot (default), AGP.

System BIOS Cacheable

Selecting the “Enabled” option allows caching of the system BIOS ROM at F0000h-FFFFFh which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors.
The Choices: Enabled, **Disabled** (default).

5 Integrated Peripherals

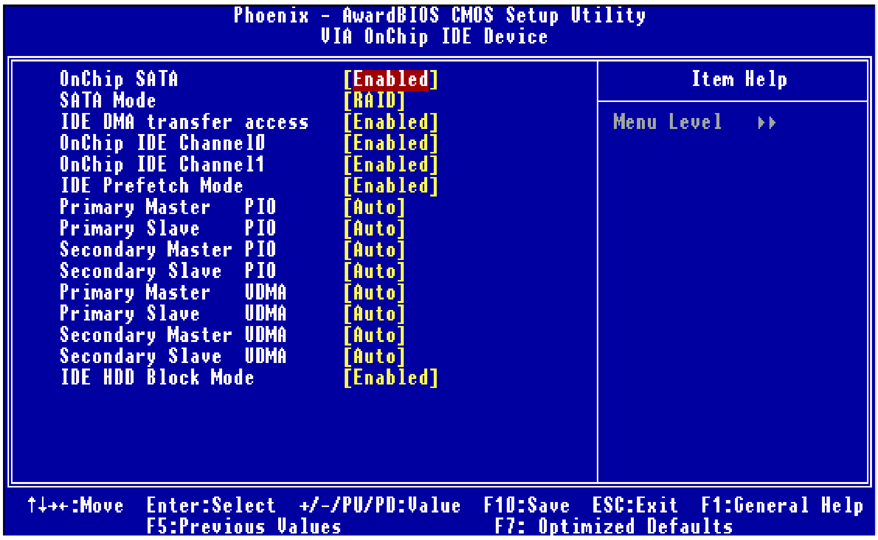
- **Figure 5. Integrated Peripheral**



VIA OnChip IDE Device

If you highlight the literal “Press Enter” next to the “VIA OnChip IDE Device” label and then press the enter key, it will take you a submenu with the following options:

- **Figure 5.1: VIA OnChip IDE Device**



OnChip SATA
This option allows you to enable the onchip Serial ATA.
The Choices: Enabled (default), Disabled.

SATA Mode
This option allows you to select SATA Mode.
The Choices: IDE, **RAID** (default).

IDE DMA Transfer Access
This option allows you to select IDE DMA Transfer Access.
The Choices: Enabled (default), Disabled.

OnChip IDE Channel 0/1
The motherboard chipset contains a PCI IDE interface with support for two IDE channels. Select “Enabled” to activate the first and/or second IDE interface. Select “Disabled” to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.
The Choices: Enabled (default), Disabled.

IDE Prefetch Mode

The "onboard" IDE drive interfaces supports IDE prefetching for faster drive access. If the interface does not support prefetching. If you install a primary and/or secondary add-in IDE interface, set this option to "Disabled".

The Choices: Enabled (default), Disabled.

Primary / Secondary /Master / Slave PIO

The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 to 4 will increase performance progressively. In Auto mode, the system automatically determines the best mode for each device.

The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

Primary / Secondary /Master / Slave UDMA

Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.

The Choices: Auto (default), Disabled.

IDE HDD Block Mode

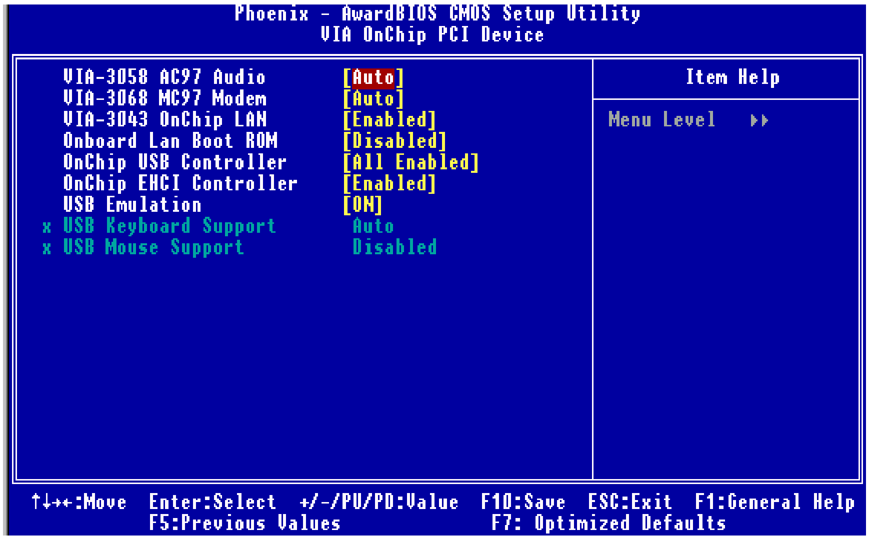
Block mode is also called block transfer, multiple commands, or multiple sector read / write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support.

The Choices: Enabled (default), Disabled.

VIA OnChip PCI Device

If you highlight the literal "Press Enter" next to the "VIA OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 5.2: VIA OnChip PCI Device**



VIA-3058 AC97 Audio
This option allows you to control the onboard AC97 audio.
The Choices: Auto (default), Disabled.

VIA-3068 MC97 Modem
This option allows you to control the onboard **MC97 Modem**
The Choices: Auto (default), Disabled.

VIA-3043 MC97 Onchip LAN
This option allows you to control the onboard **LAN**
The Choices: Enabled (default), Disabled.

Onboard Lan Boot ROM
Decide whether to invoke the boot ROM of the onboard LAN chip.
The Choices: Enabled, Disabled (default).

OnChip USB Controller
This option should be enabled if your system has a USB installed on the system board. You will need to disable this feature if you add a higher performance controller.
The Choices: All Enabled (default), All Disabled, 1&2 USB Port, 2&3 USB Port, 1&3 USB Port, 1 USB Port, 2 USB Port, 3 USB Port.

Onchip EHCI Controller
This item allows you to enable or disable the onchip EHCI controller.
The Choices: Enabled (default), Disabled.

USB Emulation Support
This item allows you to enable or disable the USB Keyboard/ Mouse Legacy Support.
The Choices: On (default), off, KB/ MS.

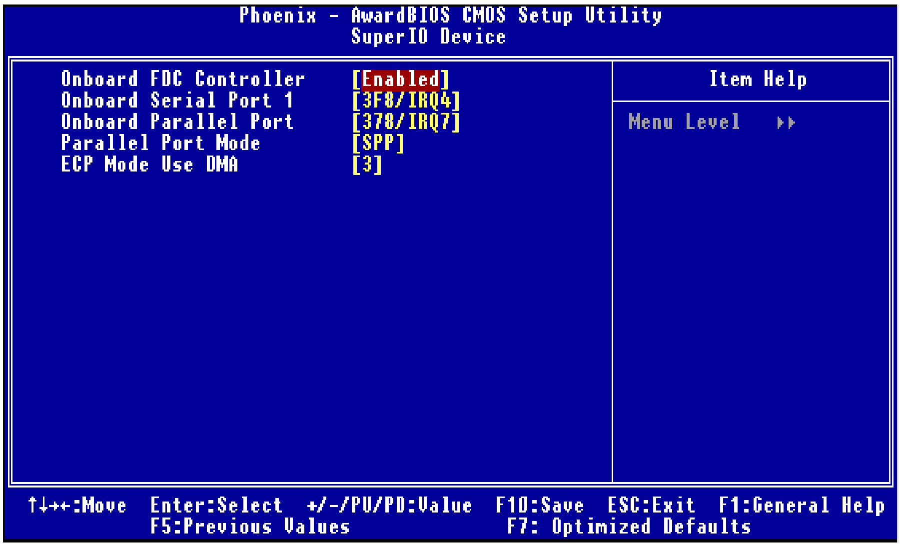
USB Keyboard Support
Enables support for USB attached mouse/keyboard.
The Choices: Auto (default), Enabled.

USB Mouse Support
Enables support for USB attached mouse/keyboard.
The Choices: Disabled (default), Enabled.

Super IO Device

Press Enter to configure the Super I/O Device.

■ **Figure 5.3: Super IO Device**



Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.

The Choices: Enabled (default), Disabled.

Onboard Serial Port 1

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: 3F8/IRQ4 (default), Disabled, Auto, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3.

Onboard Parallel Port

This item allows you to determine access onboard parallel port controller with which I/O Address.

The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode
The default value is SPP.
The Choices:

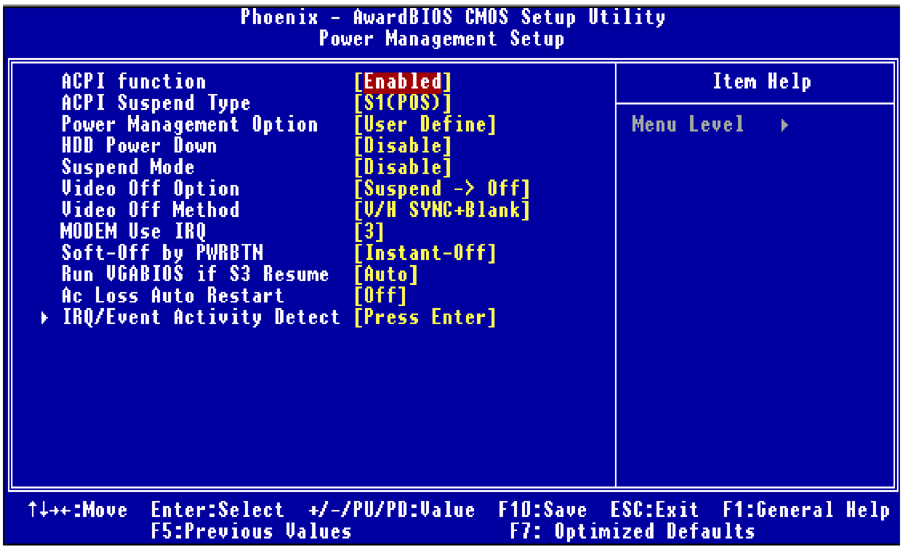
SPP (default)	Using Parallel Port as Standard Printer Port.
EPP	Using Parallel Port as Enhanced Parallel Port.
ECP	Using Parallel Port as Extended Capabilities Port.
ECP+EPP	Using Parallel Port as ECP & EPP mode.

ECP Mode Use DMA
This item allows you to determine ECP Mode Use DMA.
The Choices: 3 (default), 1.

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

- **Figure 6: Power Management Setup**



ACPI function

This item displays the status of the Advanced Configuration and Power Management (ACPI).

The Choices: Enabled (default), Disabled.

ACPI Suspend Type

The item allows you to select the suspend type under the ACPI operating system.

The Choices:	**S1 (POS)** (default)	Power on Suspend
	S3 (STR)	Suspend to RAM
	S1+S3	POS+STR

Power Management Option

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:
1.HDD Power Down.
2.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings

Min. Power Saving

Minimum power management.
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max. Power Saving

Maximum power management only available for sl CPU's.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Define (default)

Allows you to set each mode individually.
When not disabled, each of the ranges is from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

HDD Power Down

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.
The Choices: Disabled (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15Min.

Suspend Mode

The item allows you to select the suspend type under ACPI operating system.
The Choices: Disabled (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, 1 Hour

Video Off Option

This option determines the manner in which the monitor is goes blank.
The Choices: Suspend→Off (default).

Video Off Method

This option determines the manner in which the monitor is goes blank.

V/H SYNC+Blank (default)

This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen

This option only writes blanks to the video buffer.

DPMS

Initial display power management signaling.

MODEM Use IRQ

This determines the IRQ, which can be applied in MODEM use.
The Choices: 3 (default)/ 4 / 5 / 7 / 9 / 10 / 11 / NA

Soft-Off by PWR-BTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."
The Choices: Delay 4 Sec, **Instant-Off** (default).

Run VGABIOS if S3 Resume

Choosing Enabled will make BIOS run VGA BIOS to initialize the VGA card when system wakes up from S3 state. The system time is shortened if you disable the function, but system will need AGP driver to initialize the card. So, if the AGP driver of the VGA card does not support the initialization feature, the display may work abnormally or not function after S3.
The Choices: Auto (default), Yes, No.

Ac Loss Auto Restart

This field determines the action the system will automatically take when power is restored to a system that had lost power previously without any subsequent manual intervention. There are 3 sources that provide current to the CMOS area that retains these Power-On instructions; the motherboard battery (3V), the Power Supply (5VSB), and the Power Supply (3.3V). While AC is not supplying power, the motherboard uses the motherboard battery (3V). If AC power is supplied and the Power Supply is not turned on, 5VSB from the Power Supply is used. When the Power Supply is eventually turned on 3.3V from the Power Supply will be used.
There are 3 options: "Former-Sts", "On", "Off".

"Off" (default)	Means always set CMOS to the "Off" status when AC power is lost.
"On"	Means always set CMOS to the "On" status when AC power is lost
"Former-Sts"	Means to maintain the last status of the CMOS when AC power is lost.

For example: If set to “Former-Sts” and AC power is lost when system is live, then after AC power is restored, the system will automatically power on. If AC power is lost when system is not live, system will remain powered off.

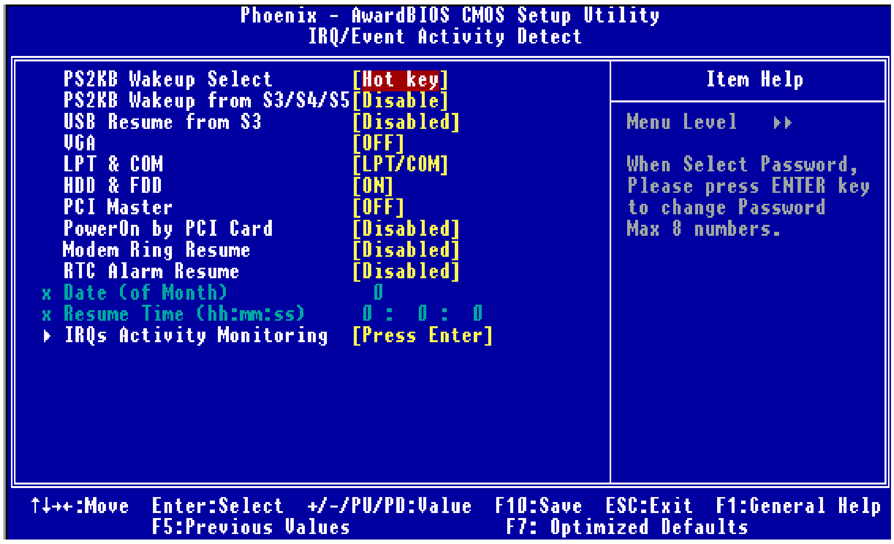
IRQ/Event Activity Detect

If you highlight the literal “Press Enter” next to the “IRQ/Event Activity Detect” label and then press the enter key, it will take you a submenu with the following options:

DPMS

Initial display power management signaling.
The Choices: Stop Grant, PwrOn Suspend.

■ **Figure 6.1:IRQ/Event Activity Detect**



PS2KB Wakeup Select
When select Password, please press Enter key to change password with a maximum of 8 characters.
The Choices: Hot Key (default).

PS2KB Wakeup from S3/ S4/ S5
This item allows you to wake up from S3/ S4/ S5 with PS2 keyboard.
The Choices: Disabled (default), Ctrl+F1, Ctrl+F2. Ctrl+F3, Ctrl+F4, Ctrl+F5, Ctrl+F6, Ctrl+F7, Ctrl+F8, Ctrl+F9, Ctrl+F10, Ctrl+F11, Ctrl+F12, Power, Wake, Any Key.

USB Resume from S3
This item allows you to enable or disabled USB resume from S3.
The Choices: Disabled (default), Enabled.

VGA
When set to **On**, any event occurring at a VGA Port will awaken a system which has been powered down.
The Choices: Off (default), On.

LPT & COM
When this option is set to **On**, any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been powered down.
The Choices: LPT/COM (default), COM, LPT, NONE.

HDD & FDD
When this option is set to **On**, any event occurring on a hard drive or a floppy drive will awaken a system which has been powered down.
The Choices: On (default), Off.

PCI Master
When set to **On**, you need a LAN add-on card which supports the power function. It should also support the wake-up on LAN jump.
The Choices: Off (default), On.

PowerOn by PCI Card
When you select Enabled, a PME signal from PCI card returns the system to Full ON state.
The Choices: Disabled (default), Enabled.

Modem Ring Resume
The Choices: Disabled (default), Enabled.

RTC Alarm Resume
When "Enabled", you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
The Choices: Enabled, **Disabled** (default).

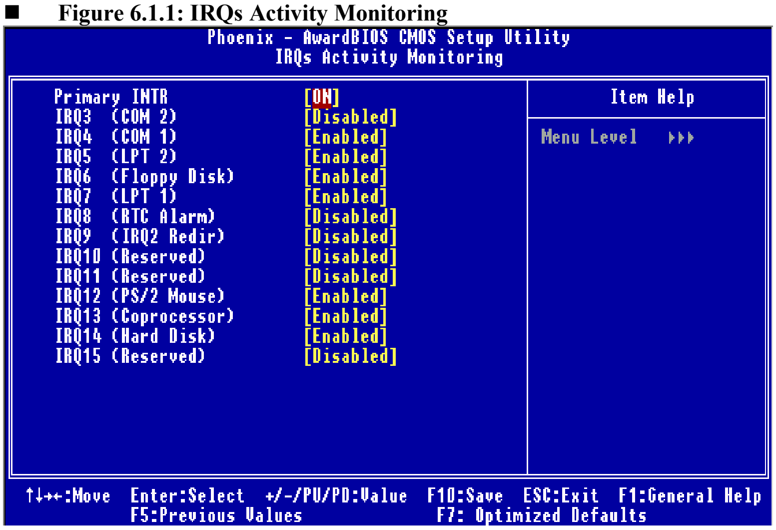
Date (of Month)
You can choose which month the system will boot up. This field is only configurable when "RTC Resume" is set to "Enabled".

Resume Time (hh:mm:ss)
You can choose the hour, minute and second the system will boot up. This field is only configurable when "RTC Resume" is set to "Enabled".

IRQs Activity Monitoring

Press Enter to access another sub menu used to configure the different wake up events (i.e. wake on LPT & COMM activity).

- **Figure 6.1.1: IRQs Activity Monitoring**

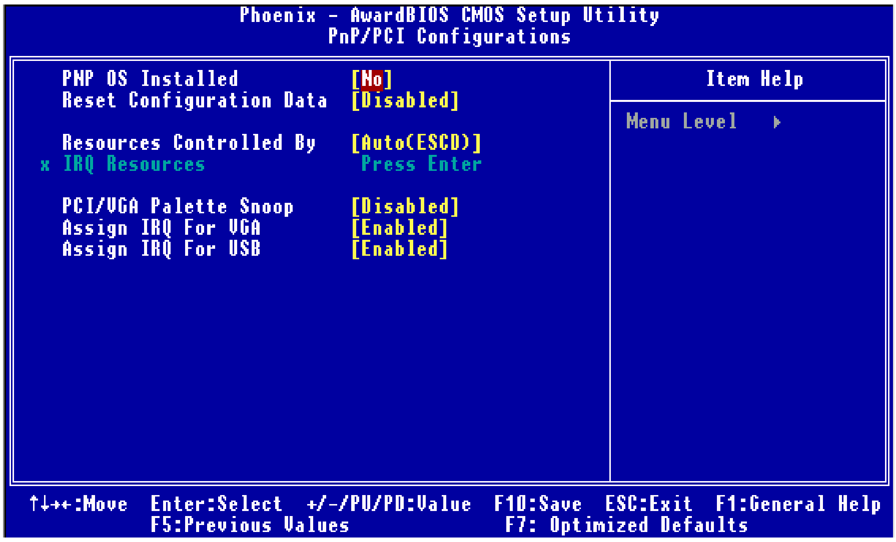


Primary INTR	On
IRQ3 (COM2)	Enabled
IRQ4 (COM1)	Enabled
IRQ5 (LPT2)	Enabled
IRQ6 (Floppy Disk)	Enabled
IRQ7 (LPT1)	Enabled
IRQ8 (RTC Alarm)	Disabled
IRQ9 (IRQ2 Redir)	Disabled
IRQ10 (Reserved)	Disabled
IRQ11 (Reserved)	Disabled
IRQ12 (PS/2 Mouse)	Enabled
IRQ13 (Coprocessor)	Enabled
IRQ14 (Hard Disk)	Enabled
IRQ15 (Reserved)	Disabled

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ **Figure 7: PnP/PCI Configurations**



PNP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Window™ 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware™), this option must set to NO.
The Choices: No (default), Yes.

Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict.

Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.
The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing "**Auto(ESCD)**" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default)	Disables the function.
Enabled	Enables the function.

Assign IRQ For VGA

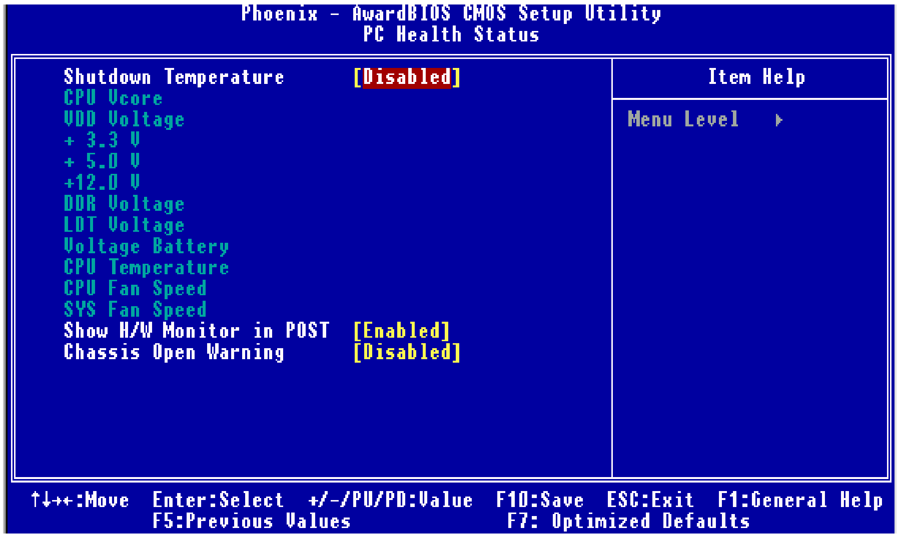
This item allows the users to choose which IRQ to assign for the VGA.
The Choices: Enabled (default), Disabled.

Assign IRQ For USB

This item allows the users to choose which IRQ to assign for the USB.
The Choices: Enabled (default), Disabled.

8 PC Health Status

- **Figure 8: PC Health Status**



Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature.
The Choices: 70℃/ 158℉, 75℃/ 167℉, 80℃/ 176℉, **85℃/ 185℉**(default)

CPU Vcore/ 3.3V/ +5.0V/ +12V/DDR Voltage/ LDT Voltage/Voltage Battery

Detect the system's voltage and battery status automatically.

CPU Temperature

Show you the CPU temperature.

CPU FAN Speed

This field displays the CPU FAN speed.

SYS FAN Speed

This field displays the speed of the SYSTEM fan.

Show H/W Monitor in POST

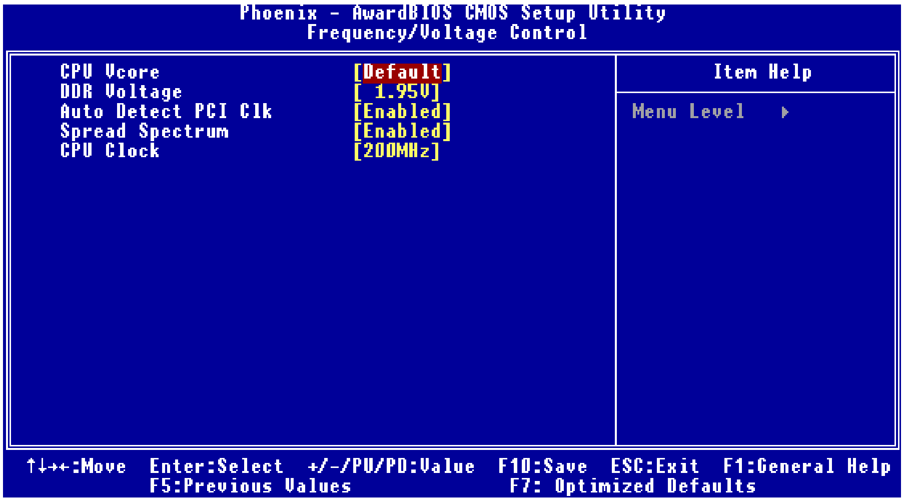
If you computer contain a monitoring system, it will show PC health status during POST stage.
The item offers several delay time to select you want
The Choices: Enabled (default), Disabled.

Chassis Open Warning

This item allows you to enable or disable Chassis Open Warning beep.
The Choices: 60oC/140oF, 65oC/149oF, 70oC/158oF, **Disabled** (default).

9 Frequency/ Voltage Control

- **Figure 9: Frequency/ Voltage Control**



CPU Vcore

The Choices: Default (default), +0.15V, +0.10V, +0.05V.

DDR Voltage

This item allows you to select DDR Voltage.

The Choices: 1.95V (default), 2.05V, 2.15V, 2.25V.

AutoDetect PCI Clk

This item allows you to enable / disable auto Detect PCI Clock.

The Choices: Enabled (default), Disabled.

Spread Spectrum

This item allows you to enable/disable the Spread Spectrum function.

The Choices: Enabled (default), Disabled

CPU CLOCK

This item allows you to select CPU Clock, and CPU over clocking

The Choices: 200Mhz (default), Disabled.

Min= 200

Max= 232

Key in a DEC number.

Special Notice:

If unfortunately, the system's frequency that you are selected is not functioning, there are two methods of booting-up the system.

Method 1:

Clear the COMS data by setting the JCOMS1 ((2-3) closed)) as "ON" status. All the CMOS data will be loaded as defaults setting.

Method 2:

Press the <Insert> key and Power button simultaneously, after that keep-on pressing the <Insert> key until the power-on screen showed.

This action will boot-up the system according to FSB of the processor.

It's strongly recommended to set CPU Vcore and clock in default setting. If the CPU Vcore and clock are not in default setting, it may cause CPU or M/B damage.